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TV Post At Hackenbacker

Special Supplement

Live Sound Application

Product Sampler

In The Rack

The 360° Producer

A Whole New Deal

Avid HD Omni & HEAT

A New Sound For Pro Tools

A NEWBAY MEDIA PUBLICATION

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WORLDWIDE EDITION

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TRUE Systems P-Solo • Apogee ONE • Olympus LS-5 • The Conch Awards: Nominations Announced, The Fellowship Award Winner • RecPublica • Live Venue: Concorde 2, Brighton • Life's Twists N' Turns: Ray Beckett • Live Update: PLASA Round-up • GeoFocus: Middle East • What's Up UK: The UK Film Council • Cut Scene: Crackdown 2 • Video Guide: Colour Grading Part 8 • Recording News • Post News • Broadcast News • AMSR News • And More!

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BOB MARLEY, AC/DC, THIN LIZZY

STEVIE WONDER

SVEN LENS
SNOOP DOG, WILLIE NELSON

TROY VAN LEEUWEN
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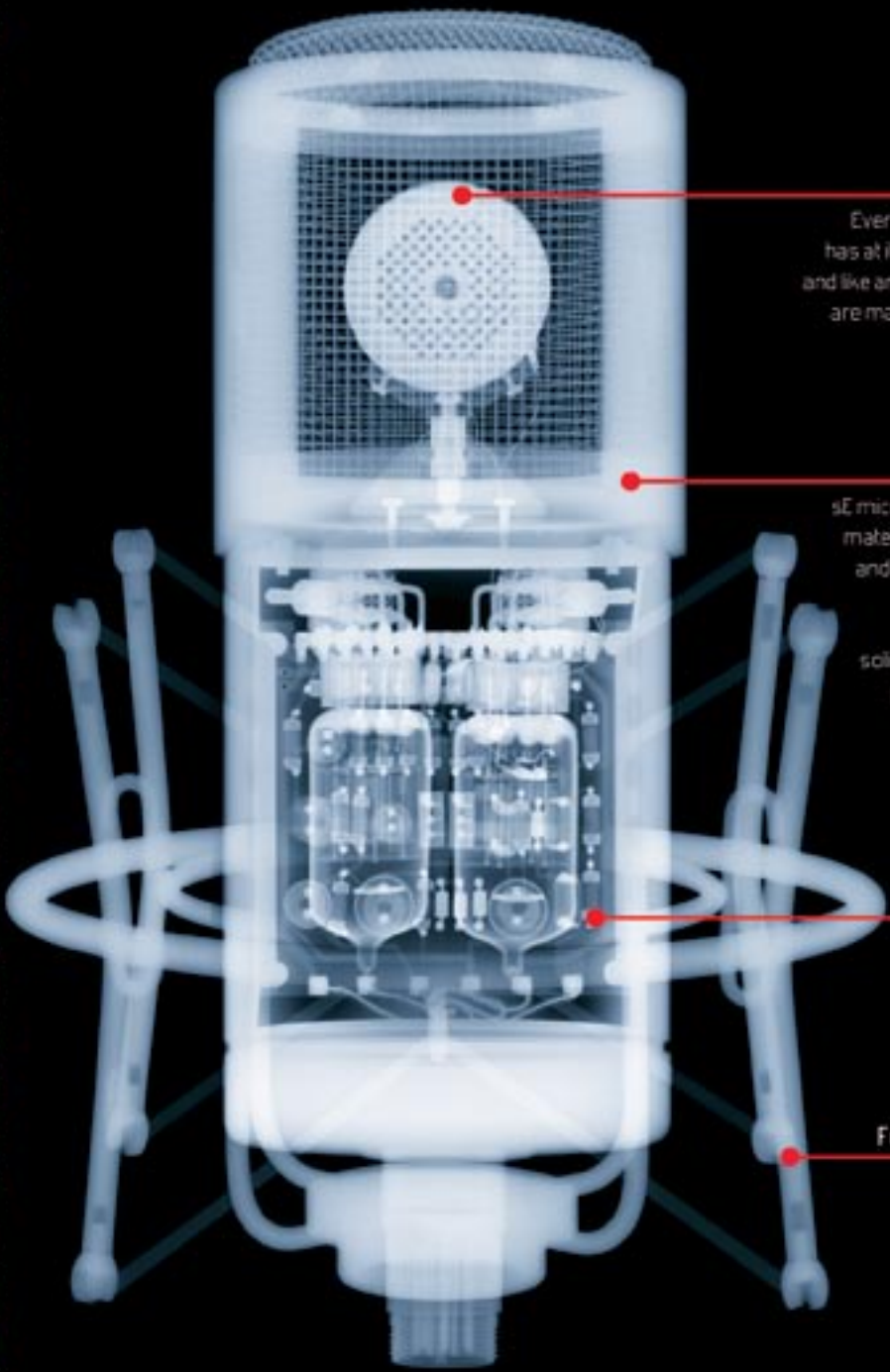

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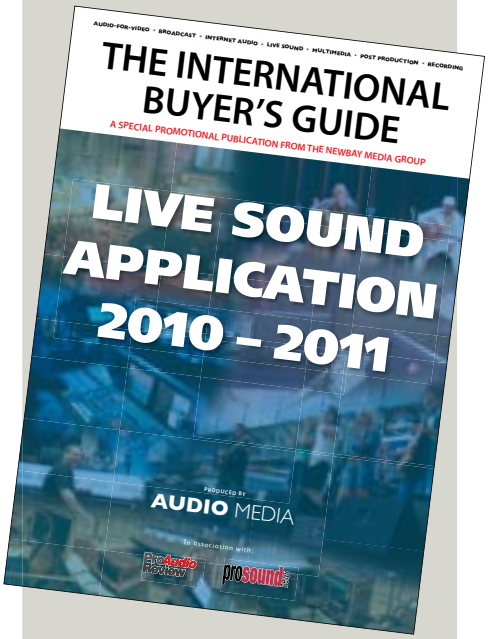
Live Sound Application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leader

Does expertise in a creative field render you unable to judge the results without prejudice, or is that simply an arrogant idea designed to somehow reinforce the plight and ego of an expert? "I simply cannot listen to music and enjoy it anymore because I know too much about it..." [back of hand limply touching forehead]. Somebody punch him before he uses the word 'erstwhile' without a crash helmet.

Having said that, I can't let the mysterious existence of a camera crew on location at a news reporter's destination pass anymore without swearing at the TV. Similarly, I don't keep a camera crew in my hall in case Keith Chegwin makes a comeback.Yes, it's just a presentation mechanism, but it's also an obvious lie used inside a piece of media that relies on a better measure of reality for its credibility.

To take the opposite tact, the miraculously fortuitous existence of cameras and crew inside the actual 2000-year old tomb that Indiana Jones has just uncovered (what are the chances?) is no problem at all – I didn't even notice it the first time round. Aside from the point that waiting around for so long on-set is probably a union issue, it's a perfect demonstration of appropriate illusion – a presentation of something that could not exist otherwise. We expect the illusion of reality, so we don't mind believing.

More difficult are the ideas that recorded music is an illusion because it doesn't exist without construction and framing, and that performed music can be an illusion because it mostly doesn't exist without practise – itself an act of prepared presentation. I mean to say, what happens if you don't prepare properly? Yes... Jazz.

The reality of a piece of music, a drama, a natural history programme, a film relies on the appropriate application of illusion – enough to give it life, but not so much that you cannot see the forest for the leaves. The listener and the viewer should not be expected to have to suspend disbelief to humour the creators – that's too much like hard work. You are expected to make them believe.

Lastly, believe it or not, the Music Producers Guild nominations are open for business. Please do your bit for the appreciation of illusionists by visiting www.mpgawards.co.uk.

Paul Mac, *Editor*

Paul Mac will be running the London Marathon on April 17th 2011 in aid of the National Deaf Children's Society (NDCS). It would be fantastic if you would consider supporting this endeavour with a small donation to the NDCS via **www.justgiving.com/jogonmac.com** If you want to consider some generous corporate sponsorship, just contact Paul at p.mac@audiomedia.com. Please note, he no longer accepts pies as payment.

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PRODUCT UPDATE

Steinberg has announced the release of WaveLab's latest incarnation, WaveLab 7. Adding new facilities to its previous versions for Windows, the seventh version sets a benchmark for audio editing and mastering under Mac OS X. "This milestone release reflects Steinberg's commitment to cross-platform support," commented Steinberg's Product Marketing Manager, Timo Wildenhain. The latest version supplies brand-new VST3 plug-ins and a revamped graphical user interface for convenient handling of audio across multiple windows.
www.steinberg.net

NEW PRODUCT

Ableton has introduced Amp, an effects plug-in designed to deliver realistic guitar amp and cabinet sounds to Ableton Live users. Amp comes with Cabinet; a separate effect that provides a selection of classic guitar cabs, with optimised mics and mic positioning. Ableton has also included a wide range of sounds that transform Ableton's instruments and effects with Amp's new sonic character. These include Instrument and Effect Racks, Live Clips, and over 400 pre-sets.
www.ableton.com

NEW PRODUCT

GS-R24 under the ZED influence

Allen & Heath has unveiled the GS-R24, a high quality analogue console combined with a choice of interface modules, motorised faders for automated mixing, and MIDI controllers for tactile interfacing with software DAWs, all at a uniquely attainable price point.

Based on the highly successful ZED-R16 Firewire recording mixer concept with influences from the classic GS3000, the GS-R24 is primarily aimed at project recording studios, although its flexible feature set lends the mixer to live sound applications requiring multi-channel recording, post production suites, and as a general-use home studio mixer.

Sporting a high quality mic pre-amp and four-band fully-parametric EQ, the GS-R24 has 24 mono mic/line channels, two dual input stereo channels, two mono valve pre-amp channels, six auxiliaries, four audio sub-group buses, a master stereo, and a master mono bus. There are two studio output sub-mix sections with individual level adjustment, which source monitor signals, and a comprehensive PFL/AFL and stereo 'Solo In Place' system, ideal for use in mix-down operation.

A slot in the rear panel provides optional input and output formats via a choice of plug-in interface module cards.

www.allen-heath.co.uk

NEW FACILITY

Northern Lights in Manhattan

New York-based boutique editorial/graphics/production team Northern Lights has opened a new 5.1 audio mixing suite in Manhattan, designed by Walters-Storyk Design Group. Working in a very limited physical space, WSDG's design was compact and extremely versatile. Working with only 330 square feet of space for the entire studio, WSDG has optimised every inch with a combination of innovative design elements and proven acoustic treatments such as ceiling membranes and Helmholtz resonators, enabling the room to deliver an extremely low reverb time. The sweet spot was expanded by placing the Focal 5.1 speakers 2/3rds back towards the rear wall.

With a staff of 25 editors and artists, Northern Lights' multi-service post boutique designs, creates, edits, mixes, and finishes a wide range of projects including commercial campaigns, promos, and graphics for such clients as Continental Airlines, General Mills, US Bank, and promos for such TV series as *Burn Notice* and *White Collar*. Its new facility is outfitted with Millenia mic pre's, Neumann U89's, Empirical Labs Distressors, Dolby 160A, Focal 5.1 monitoring, Dorrough metering Pro Tools HD and Logic Pro 9. Northern Lights also commissioned a custom desk instead of a prefabricated make.
www.wsdg.com

SITE GOES LIVE

Library music production company Strongroom Productions' new website is now live. All of the music it has released so far is available, along with details on how to download and license it for use in any kind of media production.

www.strongroomproductions.com

NEW PRODUCT

Universal Audio has announced the release of the EP-34 Tape Echo plug-in for the UAD-2. The plug-in brings the rich, warm tape delay effects of vintage Echoplex units to the UAD-2 Powered Plug-Ins platform for Mac and PC.

www.uaudio.com

NEW PRODUCT

Queens of the Stone Age and Weezer, Producer/Engineer Joe Barresi tested the new R-101 ribbon microphone from Royer Labs. "I was genuinely impressed with the results I heard, and proceeded to use them on some guitar tracks for Bad Religion," commented Barresi.

www.royerlabs.com

CREATIVE PARTNERSHIP

Audio-Technica has announced its co-operation with Ultimate Sound Bank to offer free sample player and sound-bank software with purchases of its popular AT2020 USB microphone. Ideal for songwriters and podcasters alike, the pairing assists the development of song and soundtrack ideas.

www.audio-technica.com

AUDIO WORKSHOPS

Prism Sound has been joined by Audient to present a series of Mic To Master workshops focusing on recording techniques, mixing and mastering. The workshops are taking place around the UK, with five dates organised this year.
www.prismsound.com

NEW PRODUCT

Primacoustic has announced a new product that enables users to mount their iPhone directly on a mic stand. The TelePad-4 features a quick release high impact cradle, and is equipped with a ball joint for adjustable viewing.
www.primacoustic.com

LINES DISCONTINUED

Apogee Electronics has announced the end of production for its award-winning X-Series and Rosetta 800 converters. While production will continue on Rosetta 200 and all X-cards, the torch will be passed to Apogee's new flagship interface, Symphony I/O.
www.apogeedigital.com

PRODUCT UPGRADE

Celemony has announced version 1.2 of its Melodyne editor, Melodyne assistant, and Melodyne essential. The upgrades bring 64-bit compatibility, workflow improvements, and a number of bug-fixes to the company's popular editing software.
www.celemony.com

NEW PRODUCT

A first for Neumann

Neumann has released its first studio monitor; the KH 120. Neumann is known for its high quality microphones in studios, broadcast, and on stage. With over 80 years of audio innovations, from mixing consoles and disc cutting lathes, to more recent innovations in digital technology with the Solution-D system, Neumann is moving into new territory.

Wolfgang Fraissinet, President of Marketing/Sales at Neumann Berlin commented that "Neumann is excited to introduce its latest innovation, the KH 120, representing the first product in the new line of Neumann Studio Monitors."

The KH 120 is designed for use as a near-field loudspeaker or as a rear loudspeaker in larger multi-channel systems. It has a mathematically modelled dispersion waveguide, flexible acoustical controls, analogue class-AB amplifiers, various input formats, and an extensive mounting hardware range. All of this provides the user with the maximum versatility over a wide variety acoustic conditions, source equipment, and physical locations.

A subwoofer, such as the Neumann KH 810, with its 7.1 High Definition Bass Manager, can be added to deepen the low-frequency response to 18Hz and increase the system's maximum output level. The KH 120 is perfect for tracking, mixing, and mastering in music, broadcast, project, and post production studios.
www.neumann.com

Building on the Wave

Building on the success of the Waves C4, Waves Audio has announced the C6 Multiband Compressor. The new compressor comes with all the functions of the C4, with two additional floating bands and a side-chain feature, for one-stop vocal and instrument shaping.

The C6 is hugely versatile and will find use among studio, live sound, and post production engineers. For mixing and mastering in the studio, the C6 gives users the power to shape any sound, with creative compression, dynamic EQ, and flexible side-chaining. For live sound, the C6 provides total control over dynamics and EQ, from feedback management to in-depth vocal shaping. For auto-ducking of music and ambience under speech in a post production setting, the C6 side-chain lets users carve out just the vocal frequency range, instead of attenuating the entire signal.

Snoop Dogg's FOH Engineer Ken "Pooch" Van Druten stated, "The ability to have six bands of fully sweepable dynamic EQ on the mix bus makes the C6 an all-important tool for live sound engineers. By itself, it does the work of two or three different plugs that I used to use."
www.waves.com

NEW FACILITY

Nevo Sound Studio, a large-scale studio facility combining the best of old and new, has opened its doors. The man behind the new London studio is Producer/Mixer Yoad Nevo.

"I truly believe musicians and engineers want to work in a large room full of instruments," commented Nevo. "This is how inspired records happen, and being able to build a studio like this in London, while keeping it affordable enough to fit today's industry, is a longtime dream for me."
www.nevosound.com

NEW PRODUCT

German headphone manufacturer Ultrasone has debuted the PRO 2900. Thy are the only open-backed headphone in the company's PRO Series and come in the choice of a single cabled version and a balanced, double cable version. The PRO 2900 features a 40mm titanium-plated driver and a soft USC-Cable that is paired with industry-leading Neutrik connectors. Ultrasone hopes that the PRO 2009 will strike a balance between powerful and accurate sound production, and the airy natural sound characteristics of an open-backed headphone.
www.ultrasone.com

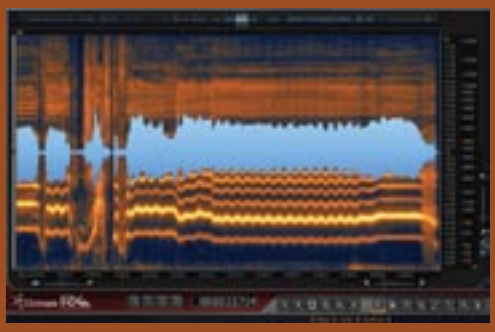
NEW PRODUCT

EastWest has released a new edition of its Hollywood Strings virtual instruments. Hollywood Strings Gold Edition provides all of the sounds from the Diamond Edition in 16-bit resolution and includes a single, mid-tree mic position, all articulations with the exception of bow-change legato.

www.eastwestsamples.com

PRODUCT UPDATE

iZotope's advances on Advanced



iZotope has updated its award winning audio repair software, with the release of RX 2 and RX 2 Advanced. With a range of new features and functionality, iZotope has expanded the scope of RX into any field where audio is recorded or restored by both consumers and professionals.

RX 2 and RX 2 Advanced are designed to repair audio problems like tonal and broadband noise, hiss and crackle, distortion from clipping, and interfering sounds like mobile phones and barking dogs.

"RX 2 and RX 2 Advanced are crucial tools if you're recording new tracks or restoring old ones," commented iZotope Chief Technology Officer, Jeremy Todd. "RX gives you all the tools you need to repair damaged audio and deliver the best recording, and includes specialised tools to restore old recordings from vinyl records.

www.izotope.com

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STUDIO UPGRADE

Heaven prompts more VCubes

Pinewood Studios has taken delivery of four additional high definition Merging VCube digital video playback systems for use in their TV and film dubbing theatres. "It really came home to us when we were working with Ridley Scott on *Kingdom of Heaven*," commented Post-production Facilities Manager Nigel Bennett. "If Ridley decided he wanted to remove a scene... [without VCube], the 35mm film would have had to go back to the cutting room, and it probably would have been a day-long process to re-conform picture and audio.

www.merging.com

NEW PRODUCT

Waves has released a new suite of audio plug-ins to assist professional video editors. The Waves Video Sound Suite features six Waves plug-ins to help reduce noise, clean up and enhance dialogue, smooth out and maximize volume, and recreate room acoustics.

www.waves.com

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NEW PRODUCT

Sound Devices has introduced the USBPre 2, an all-new version of its USBPre computer audio interface. The two-channel portable interface allows users to interconnect audio sources to Mac OS and Windows computers over USB. Featuring an entirely new electronic design, it uses the same extended-bandwidth, low-noise microphone pre-amps and digital converters as Sound Devices' award-winning 7-Series Digital Recorders. The USBPre 2 is ideal for a broad range of applications; including voiceover recording, reference playback and monitoring, and test and measurement.
www.sounddevices.com

NEW PRODUCT

Studer has released the Vista 9 Digital Console. Following on from the Vista 5, 6, 7, and 8 desks, The Vista 9 builds on previous models by taking the operator experience to a higher level, with the use of a Vistonics interface and FaderGlow, amongst other innovations. Studer's Vistonics interface employs touch-sensitive TFT screens, each of which show 10 channel strips. FaderGlow provides the operator to easily identify channel groups by illuminating each fader in one of eight freely-assignable colours.
www.studer.ch

NEW PRODUCT

A busy night and day for SSL

Solid State Logic had a busy IBC show with several new products to showcase.
Amongst these were SSL's C100 HDS and C10 HD digital broadcast consoles, now integrated with Ross Overdrive and Sony ELC Broadcast Automation systems.

"Broadcast Automation is becoming an increasingly common theme in system designs for many of our clients," says Niall Feldman, Director of New Products for Solid State Logic. "With the implementation of both the Ross and Sony protocols, C100 HDS users will enjoy greatly increased productivity, while the protocol integration for the C10 HD makes the console an even better fit for smaller facilities seeking to rise to the challenges of ever more complex HD production."

Also on show from SSL was V3 software for the company's C100 broadcast Console.

"The C100 V3 release brings a collection of powerful new features to what is already an exceptional console," commented Piers Plaskitt, Head of Console Business for Solid State Logic. "The addition of production automation integration, alongside our dialogue auto-mix and 5.1 up-mix features and new low cost I/O, addresses growing trends in broadcast production, with enhanced remote control capability and tools that improve production efficiency."

SSL's collection of new products was completed by the SDI-MADI audio de-embedder and the MADI-X8, a low cost MADI router.
www.solid-state-logic.com

NEW PRODUCT

Lawo Premiere

Lawo has premiered the newest member of its radio console family. The Sapphire is designed to embrace the varying demands of today's on air and production studios. Lawo's R&D team wanted to create a console with the flexibility, tone, and technical capabilities sought after by engineers, whilst respecting the needs of editors and presenters for intuitive operation.

The sapphire achieves these requirements through a combination of a fresh and intuitive control surface, high performance, and maximum flexibility. Thus, customers can tailor their on-air or production studio exactly to their personal needs and requirements.

Sapphire borrows from the flat construction of Lawo's Crystal console, and has a solid aluminium surface. Up to 40 faders can either be placed arbitrarily on individual studio islands or integrated into the desk, allowing moderators to work from different positions whilst on-air.

Up to 80 mono sources can be connected simultaneously with the use of layers. Mono, stereo, and 5.1 sources are possible, each of which can be assigned to a single fader.
www.lawo.de

NEW PRODUCTS

Sonifex has announced a number of new products at IBC. There were six additions to its Redbox range, a call-in system for radio talk-shows, a telephone balance unit, and a telephone listen unit.
www.sonifex.co.uk

NEW PRODUCT

SRS 5.1 Surround Sound

SRS Labs has announced that it is making complete SRS surround sound encoding and decoding technology available to users of Microsoft Silverlight, a powerful development platform for creating rich media and business applications for the Web, desktop, and mobile devices.
www.srslabs.com

NEW PRODUCT

Dolby used IBC to demonstrate its full HDTV-compatible audio description services enabled via Dolby Digital Plus.
The Dolby solution improves on existing stereo-only provision by allowing visually-impaired viewers to enjoy HDTV surround sound programming with audio descriptive tracks.

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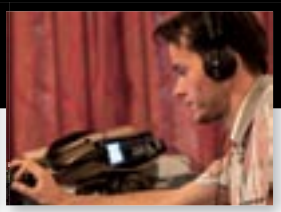
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www.nagraaudio.com

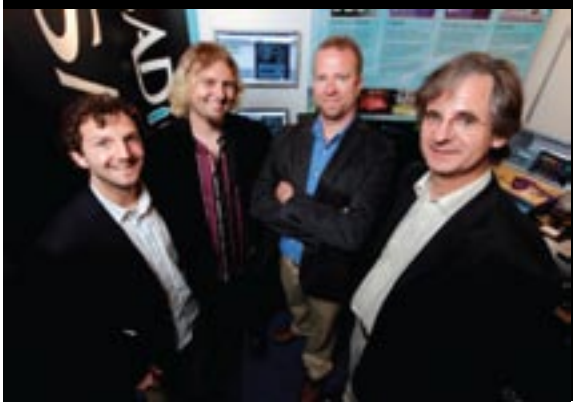
NEW PRODUCT
Open Technology Solution

RAVENNA

ALC NetworX's RAVENNA networking solution caused a stir at IBC, with several manufacturers signing up to make products implementing the technology. It allows for real-time distribution of audio and other media content in IP-based network environments, and can operate on existing network infrastructures. RAVENNA will be an open technology standard without a proprietary licensing policy. To date, ALC NetworX has teamed up with pro-audio companies such as Genelec, Lawo, Merging Technologies, Innovason, DirectOut, LSB/VSM Control, and DSA Volgmann, to present a range of RAVENNA-powered prototypes.
www.alcnetworx.com

CREATIVE PARTNERSHIP
Creative deal adds new feature set

Prism Sound has announced a major addition to its new SADiE 6 release. In a deal with iZotope, all SADiE 6 DAW systems will include an expanded audio effect feature set powered by iZotope technology. These sets will include reverb, chorus & flanger, analogue delay, phaser, pitch-shift, parametric EQ, single-band compressor, multi-band compressor, and simple mastering. These VST plug-ins make use of SADiE 6's extended VST capabilities and are in addition to the existing on-board EQ's, dynamics, aux sends, M/S decoder, width control, graphic EQ, and mastering limiter.
Prism Sound's SADiE 6 specialist, Peter Nash commented: "The deal with iZotope brings a well respected range of creative tools to SADiE 6, which will prove invaluable to creative radio production professionals and post production specialists alike. We have worked closely with iZotope to choose precisely the right combination of functionality to allow creativity to be maximised in what is already regarded as the most professional and serious of DAWs used by broadcasters the world over."
www.sadie.com



NEW PRODUCT
Sennheiser expands microphone range

Sennheiser has expanded its pro-audio range with three new products. The SKM 5200-II is a wireless microphone with a switching bandwidth of up to 184 MHz. Also new was a paintable version of the miniature MKE 1 clip-on mic, allowing the tiny lavalier to be blended with the artist's costume and make-up. Sennheiser's new additions were rounded off by the MKH 800 TWIN dual-capsule microphone. A special adaptor cable is now available to connect the TWIN with the AES42 digital module of the MKH 8000 series.
www.sennheiser.com

NEW PRODUCT
StageTec launch new console

StageTec has unveiled its latest digital mixing console. The On Air 24 is a compact and intuitive radio broadcast console for self-op use.

The modular console consists of compact fader panels, each of which has four faders and a monitor panel. It can be expanded from the smallest version, with only four faders, up to a maximum of 24 faders. The modules are intended to be installed directly into the presenter's table, or in dedicated studio furniture.

The On Air 24 has a similar audio hardware interface to that of other StageTec mixing consoles, and is based on the Emmy winning Nexus audio router. Nexus provides the I/O interfaces and serves as a host to the mixing console processing board.

An additional GUI-based PC software application enables the technical supervisor to prepare and support self-op use. The PC software makes many configuration options available and can be used for full remote control.
www.stagetec.com

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The RME MADI product range includes converters and preamps for analog, the common digital formats AES/EBU and ADAT, a MADI router, a MADI Bridge and PCI (Express) solutions for Windows and Mac computers.

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www.synthax.co.uk

NEW PRODUCT

Allen & Heath has added the xDR-16 expander to its iLive digital mixing family. The expander provides remote analogue I/O expansion and networking options at FOH or remotely. The xDR-16 has 16 analogue inputs and eight analogue outputs connected via Allen & Heath's proprietary Audio and Control over Ethernet link fitted in Port B of an iLive MixRack, which can be positioned up to 120 metres away on CAT5 or further on a dedicated fibre optic system.

"The xDR-16 adds to the flexibility of the iLive range by providing a wealth of expansion possibilities," commented Allen & Heath MD, Glenn Rogers.

www.allen-heath.com

New Products

Soundcraft Compact

Soundcraft has released a new range of compact digital consoles for touring and theatre applications. The Si Compact Series, which was on show at PLASA '10, draws on the company's Si Series, and combines powerful mixing facilities with Lexicon effects. With full DSP functionality built in to a small chassis, the Si Compact provides up to 40 inputs to mix in three frame sizes, the smallest of which is also rack-mountable.

Andy Trott, Harman's Vice President and General Manager for Mixing, Microphones & Headphones commented that the Si Series brings together "many professional features and technologies from across Harman Professional brands into a highly specified but yet super-compact mixing platform at an unbelievably low price point." The compact consoles benefit from a full encoder set for all the functions on a channel, from input gain through EQ and dynamics to bus controls.

On show alongside the Si Compact Series was the new Compact Stagebox for Vi and Si consoles. The stagebox offers a high density of I/O connections; 32 line inputs, eight line outputs, eight channels of AES/EBU outputs, and two expansion slots for standard Studer D21m I/O cards within 4U of rack space.

www.soundcraft.com

NEW PRODUCT

Harman Professional is debuting its HiQnet System Architect version 2.2, representing a significant step forward in the new design paradigms introduced with version 2.0. Harman's Professional's Senior Marketing Manager called it "a great leap forward in its monitoring and control functionality".

www.harmanpro.com

FIELD REPORT

A Midas PRO6 live system was recently used at the Metal Hammer Festival in Poland. "It feels like using the analogue Midas equipment we all love," commented FOH engineer Daniel Schindler. "The way of working is intuitive and a step towards the future."

www.midasconsoles.com

NEW PRODUCT

DiGiCo lauched its new Little Boxes at PLASA '10. The Little Red Box and Little Blue Box are two compact add on units that expand the connectivity of Digico consoles. The Little Red Box allows users to connect a D-Rack or a MADI Rack to two SD9s. The Little Blue Box, meanwhile, connects an SD9, D-Rack and MADI console, thus allowing a D-Rack to be shared between two or three consoles. Both boxes are powered via USB and can be easily connected to the mixing console with a Velcro strip, or by use of a specially designed 19-inch rack plate.

www.digico.biz

NEW PRODUCTS

JoeCo Extends BlackBox Range

JoeCo previewed its new BlackBox Player at PLASA last month. Based on technology from the BlackBox Recorder, the new 1U multi-channel device is specifically designed for replaying backing tracks for live shows. It is able to replay 24 channels of 24-bit/96kHz audio, and can be triggered with a foot-switch or keyboard, or controlled via MIDI commands.

In a recent software update, JoeCo has implemented optional support for iXML in the award-winning 24-track BlackBox Recorder. The addition of iXML allows for the inclusion of location sound metadata in broadcast WAV files. A standard QWERTY keyboard can be connected to the BlackBox Recorder for rapid data entry, with most frequently used items accessible via a series of keyboard shortcuts.

JoeCo has also announced the beginning of a collaboration with Audinate that will see Dante networking technology incorporated into a range of BlackBox Recorder products.

www.joeco.co.uk

NEW PRODUCT

Community Professional Loudspeakers has been granted a patent for its work on Carbon Ring Cone Technology. Community founder Bruce Howze describes the highly rigid, lightweight technology as "a realistic step" towards an ideal loudspeaker cone.

www.communitypro.com

NEW PRODUCT

Earthworks has introduced improvements to its FlexMic Series of microphones. Designed specifically for use as podium microphones, they provide a high level of speech intelligibility and uniform off-axis response to insure that the orator is heard clearly and distinctly.

www.earthworksaudio.com

PALME ACCOLADE

Neumann's Solution-D digital microphone series was announced as the Best pro Audio Technology of the year at this year's PALME show. All features of Neumann's Solution-D series can be edited, saved, and recalled within production files and snapshots of Innovason consoles.

www.neumann.com

NEW PRODUCT

Nexo previewed its new N-12 monitor loudspeaker at PLASA '10. The 45° wedge monitor brings the benefits of line-array technology to the stage by creating virtual acoustic sources behind the enclosure and below the stage, using reflection to determine the shape of the wavefront.

www.nexo-sa.com

NEW PRODUCT

AKG has introduced an iPhone app for browsing, monitoring, and controlling its wireless microphone systems. It links Harman's HiQnet protocol to the iPhone via Wi-Fi, and is compatible with AKG's DMS 700, WMS 4000/4500, and IVM four wireless microphone systems.

www.akg.com

FIELD REPORT

Sound designer Colin Pink has specified DPA miniature microphones for a new UK tour of Chess. He needed a product that could handle "30 performers on stage who sing, play and dance, often all at the same time".

www.dpamicrophones.com

FIELD REPORT

Red-TX Provide Help For Heroes

Broadcast sound specialist Red-TX was employed to capture the audio for the *Help for Heroes* benefit concert, which took place at Twickenham Stadium on Sunday 12 September. The event raised funds for injured UK service personnel and featured acts such as Robbie Williams, Gary Barlow, and Tom Jones. It was broadcast live by the BBC, which took its music audio feed from the Red-TX sound truck.

The desk on board Red-TX's main truck was manned by Tim Summarhayes, while Conrad Fletcher was on-board a BBC Outside Broadcast vehicle handling the audio input from all the VTs, the comedians and the live presenters on stage, and the music mix from Tim.

Red-TX was commissioned to handle the audio by Chris Bretnall, Head of Creative Broadcast Solutions, who was engaged as Technical Director by BBC Events. "The concert was visually stunning and was perfectly complemented by Tim's wonderful music mixes and Conrad's fantastic TV balance," commented Bretnall. "For me, Red-TX are about the best live sound specialists in the business when it comes to delivering music events... hiring Red-TX for a project means that it just happens – and happens with technical perfection and artistic flair, whatever the genre."

www.redtx.com

FIELD REPORT

Clair Brothers Take On The World

US-based touring company and loudspeaker manufacturer Clair Brothers is preparing to develop globally.

The company has appointed David Cooper, previously of Midas' sales and marketing team, to develop the company, and has relocated to a new 50,000 sq. ft manufacturing facility in Manheim, Pennsylvania.

"We've built a state-of-the-art facility that builds premium quality Clair Brothers loudspeaker systems," commented Barry Clair. "The appointment of David Cooper confirms our ambition to deliver these industry leading solutions to customers all around the world."

Clair Brothers' products have been installed in many high-profile locations across North America over the past two decades. "Our product portfolio continues to quickly grow with our i-Series line arrays, providing the highest, most consistent and predictable performance levels available," continues Clair. "We offer our US customers this product with ultimate service and the goal now is to roll out this level of support globally."

www.clairsystems.com

NEW PRODUCT

Crown has introduced VRACK, a complete amplifier management rack system solution. It is designed to optimise JBL and Crown systems for the highest level of performance. The VRACK features three built in Crown I-Tech 12000HD amplifiers, immediately providing a plug and play solution that eliminates the need to build amplifier racks. Designed to work in conjunction with JBL VerTec, VRX, and AE Series loudspeakers, the system's modular design is highly scalable and is designed to meet the needs of both small and large sound systems.

www.crownaudio.com

NEW PRODUCT

Yamaha launched its new StageMix app for the Apple iPad at PLASA '10. Alongside Yamaha's M7CL48-ES digital mixing console, it allows audio engineers to wirelessly mix on-stage sound with no intermediate computer.

A major advantage of the wireless control system is that engineers can set up monitor mixes from the performers' positions on stage, directly controlling mix parameters rather than having to rely on verbal directions to a second engineer.

www.yamahaproaudio.com

whatsupuk@audiomedia.com

It's a Love-Hate Thing

The UK Film Council is one of the 170 QUANGOS the Government has identified as 'surplus to requirement'. KEVIN HILTON explores the very divided viewpoints behind this decision.

The British have a love-hate relationship with bureaucracy. They resent how much money is spent on bureaucrats, who represent a faceless state that threatens individual freedoms with its regulations. Then again, most people seem uncomfortable at the thought of no mechanism at all to take care of the difficult, tedious job of actually organising something and getting it done.

There's a good example of this split in attitude over the decision by the coalition government to wind up the UK Film Council (UKFC). The UKFC is that peculiar beast, a QUANGO (quasi-autonomous non-governmental organisation). The acronym itself is regarded as derogatory and refers to a semi-public administrative body that is outside the Civil Service but receives funding from the government, which also appoints senior staff.

The new UK government has identified QUANGOS as surplus to requirements. It is to cut more than 170 of them in an effort to reduce the country's budget deficit. The UKFC was among the first for the chop.

The UKFC was created in 2000 by the Labour government of the time. Its brief was to fund filmmaking in Britain and promote the industry as a whole. This involved training to bring on the next generation of filmmakers, as well as getting overseas producers to use UK crew, studios, service companies and post-production facilities.

An assessment of what might happen without the UKFC was given by Iain Smith, Producer of *Alexander* and *Children of Men* and associate producer of *The Killing Fields*, *The Mission* and *Local Hero*.

In a letter to *The Sunday Telegraph*, Smith accused Culture Secretary Peter Hunt of putting the commercial future of the film business "in grave peril". He called for Hunt to decide quickly what will replace the UKFC otherwise "he will have the death of an industry on his hands".

The flipside of the argument was shown in a piece written by David Gritten for *The Daily Telegraph*. Gritten received e-mails from producers and others in the film industry who were positively rejoicing at the organisation's demise. "Ding-dong the witch is dead" seemed to be the reaction, he wrote.

Much of the criticism concerned the bureaucracy of the Council, making producers jump through hoops and tick boxes to get backing, a string of bad films that did get funding and the high salaries paid to staff. But Gritten turned the argument round at the end, concluding that people might not realise what they had until it was gone.

This sentiment was echoed by an impressive array of film industry figures, including Clint Eastwood, Steven Spielberg, Liam Neeson, Mike Leigh, Emily Blunt, and Sir Ian Holm, who all showed support for UKFC. The Chief Executive of the Council, John Woodward, resigned from his post in September so he could be "unconflicted" in future discussions about the future for the British film industry.

The audio post-production sector has done well out of the resurgence of British cinema in recent years. Whether the market will really be affected by the closure of the UKFC is unclear right now. "At this stage, until we know what will replace it, we have to reserve judgement," says Peter Hampden, a director of LipSync. "Meanwhile, it is a real concern as the Film Council has been active in supporting the UK film industry, so we very much hope that whatever replaces it will be equally effective."

Stephen Margolis, Chief Executive of Future Films, owner of Pepper Post, says he was "quite surprised" when he heard the announcement. "I thought the Film Council provided a very good spine to the film industry in the UK," he comments. However, he observes, there is some confusion over the role of the UKFC, pointing out that it is the job of the Film Commission to bring films to the country. "There's also the question of the amount of business the post industry can handle. But the lack of the Film Council won't affect the sector per se."

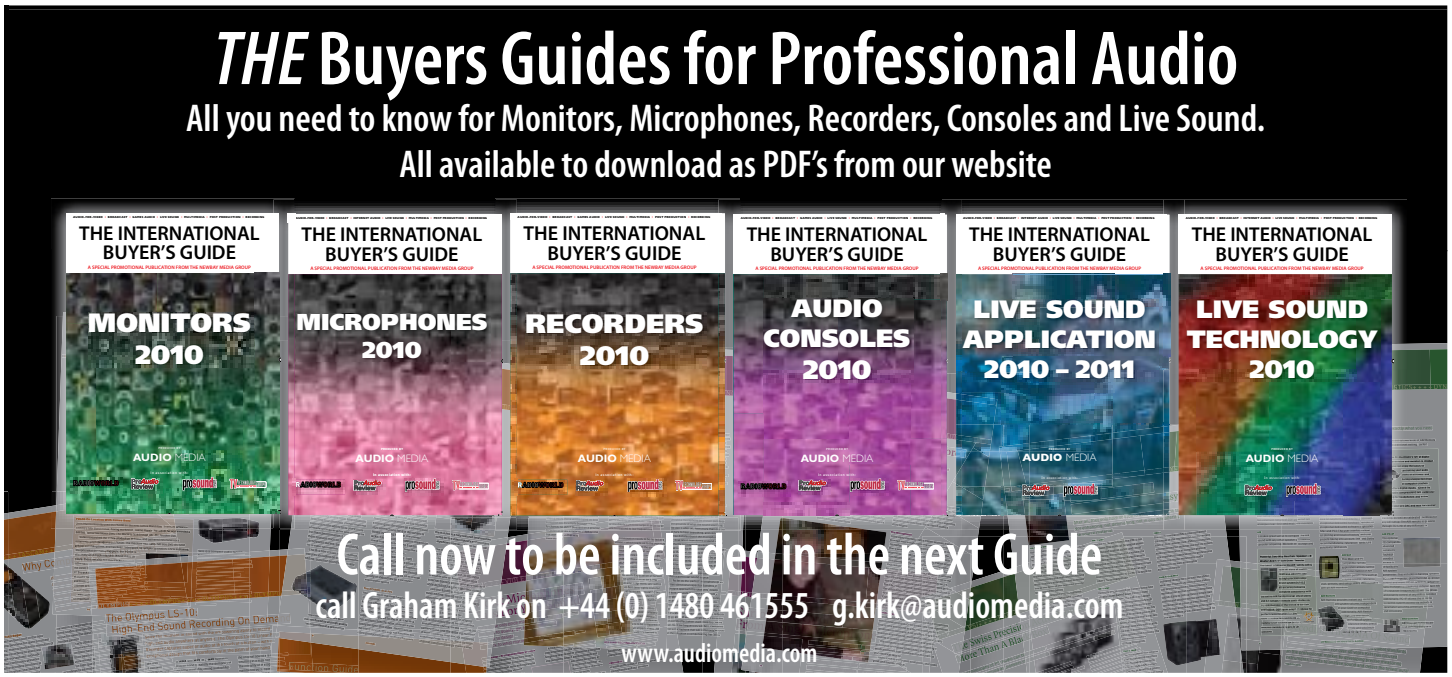
Goldcrest Films was responsible for some of the most successful productions made in the UK during the 1980s, including *Gandhi* and *Chariots of Fire*. It also has a post-production arm, whose Chief Executive, Keith Williams, observes that closing the UKFC might result in fewer films being made. " That could mean less post work as well," he says. "But there is also the situation that a lot of the small home-grown pictures look for incredible deals on post, so that work wouldn't come our way."

In the meantime the UKFC's staff face a period of uncertainty. There was talk of the Council being wound up in 2012 but there are also rumours of it closing by the end of this year.

Tina McFarling, the Council's Head of Industry Relations, points to its record of bringing on the next generation of film makers, on top of getting films made.

Acknowledging the criticism of bureaucracy, McFarling says that there is only so much money to go round, so someone has to decide where it goes. "But we do talk to everybody involved and do discuss things with people in the business, who are our stake holders," she says.

Perhaps whatever replaces the UKFC should have a less dusty, jargon-using approach, just to endear it more to people. But however it does the job, that job needs to be done.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Eastlake Audio Builds In The Gulf

Eastlake Audio has been occupied recently with projects in the Arabian Gulf. In partnership with long-term local partner company, A-V Plus of Dubai, three recording studio projects have been completed since the start of 2010.

Two of the projects which completed by mid-year were located in central Dubai. Within the Western world, Dubai is probably the best known of the seven states which make up the United Arab Emirates.

The most recently project completion has just taken place in Jeddah, Saudi Arabia. In the pictures, a CAD generated preliminary Control Room visualisation produced for initial project discussion purposes is shown together with a picture of the completed room. This Control Room is 42M2 and has two attached recording areas of 15 and 40M2 respectively.

In each case, the equipment (including extensive Pro Tools and Adam S7A monitoring (the German manufacturer's largest model), was supplied and installed by A-V Plus of Dubai. Acoustical Design and on-site Construction Supervision was undertaken by Eastlake Audio.

All the facilities will be used for the recording of local Gulf Area musical artistes and – a local speciality which sells in surprising numbers – the recording of Arabic poetry declaimed by its writers.

"Over the years we have had the good fortune to work in Bahrain, Abu Dhabi, and Dubai as well as Saudi, Egypt and Libya," says Eastlake's David Hawkins. "The smaller Gulf States such as the Emirates, are incidentally exceedingly welcoming places without any of the business and personal restrictions and fanaticisms that other parts of that area are noted for.

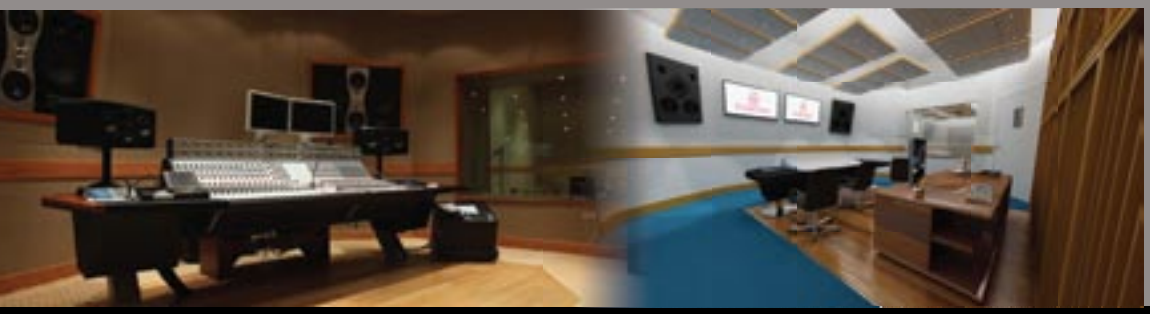
"We first worked in Dubai when it was in the early days of establishing itself as a dynamic Gulf trading state and we built what was the first reasonably-sized commercial studio there. That became a magnet for other Gulf recording activity and subsequently we've worked extensively across the region – including Kuwait City where we were involved in rebuilding and re-equipping the Ministry of Information's broadcast facilities after they had been looted and trashed by Saddam Hussein.

"We recently carried out a full cosmetic upgrade on Fenoon Al Emirates, our initial Dubai project and in late 2009, designed and constructed a brand-new central Dubai facility for a highly successful local artiste."

A further Eastlake-designed and site-supervised facility is currently nearing completion within the Royal Leisure Centre in Dubai, totally unaffected by the recent property market upheavals.

Other Eastlake overseas activity is taking place in Singapore where a film mixing facility is drawing towards completion.

www.eastlake-audio.co.uk



Tannoy's VQ reinforces Dubai Theatre Sound

Tannoy's VQ Series loudspeaker system has been putting in a leading performance at a theatre in Dubai, with a pair of VQNET 60 cabs at Dubai Community Theatre & Arts Centre (DUCTAC), located within the Mall of the Emirates.

DUCTAC is the first modern, non-profit, cross-community creative centre in the Gulf region, built to international specifications. The brainchild of local theatre-lovers and business people who recognised the need for an entertainment and educational centre for the community and future generations of Dubai, the facility opened in late 2006.

The main auditorium within DUCTAC comprises of a tiered two level theatre with a capacity of 543, including four VIP boxes, and plays host to an array of international and local theatre, dance, comedy and music as well as TV shoots and exhibitions. The centre has been trying out Tannoy's new VQ Series, with positive results.

Centre's Technical Manager, Craig Burgess, comments, "The Tannoy VQ system we have installed has really surprised me. I'm impressed with the system's response and compact design. Having VQ in our theatre gives us real flexibility and reliability to cope with the diverse range of shows we tend to have here.

The new system has been put through its paces already this summer with high-profile shows, including local productions of *Fame* and *Hairspray*, the latter of which included cast members from the original West End production.

www.tannoy.com

Gulf Crewing Company Celebrates Months

Dubai-based Gulf Crewing Company (GCC) celebrates 18 months in business with a success story which has seen the company expand rapidly and the staff increase by 300 per cent. Gulf Crewing Company was launched in November 2008 by Jo Marshall, Nigel Beaton and Shane Manning – all of whom have considerable experience working in various aspects of the live events industry.

The concept is to provide a European-style crewing operation to supply skilled, qualified efficient crew and technicians for all types of events.

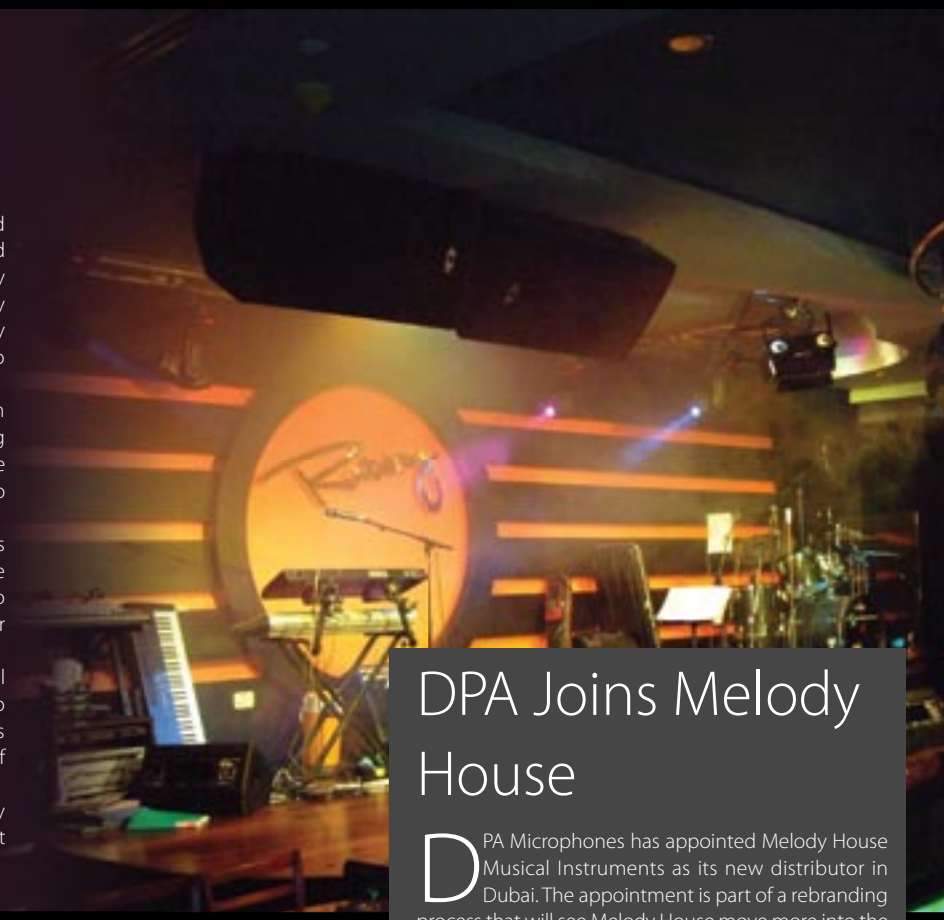
Beaton had been working in the Middle East as a freelancer and realised that there was a real need for a professionally run and organised crew service on these lines. He and Marshall – a show Technical Director/Production Manager and now heading Al Laith Events Services, formed GCC along with Manning, an experienced rigger, to fill that vacuum.

"The idea is to equip all our crew with the knowledge, training, and experience to offer the very best service and support at all events — from corporate to rock 'n' roll," says Marshall.

"Our aim is to present the best crew with the best attitude and technical skills," says Beaton, adding that their success in the short time period has been down to creating a well-organised, service-driven operation that has impressed numerous clients first hand.

www.gulfcrewing.com

The Ratsky Goes Digital



The Ratsky in Dubai's Excelsior Creek recently installed a sound system from Dynacord. Liberty Acoustics was entrusted with the task of performing the installation. Supported by Dynacord's's partners in the region, AVL, the team from Liberty Acoustics installed, for the first time in any Dubai club, a fully digital control platform. Its nerve centre is a P 64 Digital Audio Matrix Manager.

This network-capable and freely configurable audio system controller offers not only the live bands but also the DJs making guest appearances in the club a wide range of possibilities: the entire audio system is configurable, remote controlled and also supervised remotely by means of the IRIS-Net software.

"It's the P 64 and IRIS-Net that does all the work in the club," says Liberty Acoustics MD Mark Legaspi. "The DSP system spares those responsible a great deal of time and also worry, as it allows them to define access rights. The pop-up menus and indeed the entire user interface are a joy to work with."

The Mood is another club lodged in the Excelsior Creek Hotel and, like the Ratsky boasts a new Dynacord system. There, in two VL 212s, four VL 262s and three Sub18, cabinets, Liberty Acoustics found a formula attuned to the acoustics and musical demands of the club.

"The Sub 18 provides more pressure in the bass region than any other single 18-inch," says Legaspi. "Twinned with the VariLine tops, it represents without question the optimum solution for the Mood."

www.dynacord.de

DPA Joins Melody House

DPA Microphones has appointed Melody House Musical Instruments as its new distributor in Dubai. The appointment is part of a rebranding process that will see Melody House move more into the pro audio sector to complement its MI roots.

Greg Cargopoulos from Melody House is familiar with DPA microphones from his own experience of working with them. "We are very happy to be the newly-appointed regional distributors of DPA microphones," he says. "I have been working as a sound engineer for many years, often on corporate events where there are several headband and lavalier microphones on stage at one time, and DPA mics have been a life-saver in many situations.

"The thing I like about these microphones is how the frequency response is so neutral. The design is always to be as neutral as possible, rather than have a coloured frequency response. This, coupled with a flat-response loudspeaker system, is the way to get maximum gain-before-feedback, as it gives the engineer maximum control."

"Melody House will be a really good partner for us in Dubai as they have a well established network," says DPA's regional sales manager, Michael Trolle. "In addition, as they are soon opening a retail shop, this is an opportunity for us to grow our instrument mic market, together with Melody House."

www.dpamicrophones.com

Creative Events procures Midas PRO6

Creative Events, a major rental firm based in Doha, Qatar has acquired a fourth Midas console for its inventory. The company already boasts a Heritage 3000, Legend 3000 and a Verona. The new purchase is their first Midas digital console in the form of the PRO6.

"Creative Events already owns more than one digital console but this is their first Midas console that is digital," commented Richie Hiranandani, marketing manager. "After they were able to compare the audio quality from their inventory of digital consoles, the conclusion is that the Midas PRO6 is significantly superior."

www.midasconsoles.com

RSG appoints NMK as UAE distributor

Roland Systems Group (RSG), a member of the Roland Corporation Group, has appointed Nicolas Kyvernitis Electronics Enterprises (NMK) as the exclusive distributor for supplying its Roland Professional audio and video product line to UAE, Bahrain, Kuwait, Qatar and Oman.

NMK headquarters are located in Dubai and the company has been operating in the market for 26 years already, since they started in 1984 focusing on the audio, video and lighting industries. NMK began in Sharjah (UAE) as a small company and during its years of operation has become a leading distributor of professional audio, video and lighting products in the Middle East

The agreement was taken after the recent visit which the president & CEO of Roland systems Group EMEA, Paulo Caius to NMK in Dubai.

"NMK are looking forward to introducing Roland audio and video products across the region," commented Richie Hiranandani, marketing manager. "With the addition of video products in our portfolio, NMK is even closer to providing our clients a complete AV solution."

www.rolandsg.co.uk

PLASA 2010 Hits High Notes

JIM EVANS tours the aisles of Earls Court

PLASA 2010 closed on a high, with preliminary visitor figures set to show an increase over 2009 and strong international engagement from across the world. The official line states: "The event, which filled London's Earls Court 1 and 2, drew over 12,000 visitors, while the international attendance continued to be strong with nearly 30 per cent of visitors attending from 99 countries worldwide."

This is no hype. The exhibition had momentum on its side from the beginning thanks to a strong exhibitor base, a range of new features and special events, and the addition of two major conferences. And on the pro audio front, there was much that was new and much to talk about. The press reception/product launch circuit had plenty to offer the thirsty trade press alongside the champagne, canapés and, indeed, fine wines from Italy's RCF and France's APG.

A Vintage Year

In the ISCE Pavilion Phil Price, UK director of sales at RCF poured some excellent Malintoppo Orcia 2004 vintage and noted, "We felt that it was important that we were here: we've been working with a range of consultants and system integrators on potential projects that if they come to fruition will have made this a genuinely worthwhile event."

Over on the Red Square Audio stand, while serving generous helpings of home-made foie gras and delectable organic wines, APG debuted the DX12 compact, low profile monitor speakers and confirmed that Surbiton-based Plus 4 Audio confirmed that it had taken delivery of 12 of the new boxes for rental stock.

On the console/mixing desk front, Midas launched the VeniceF, a 'digi-log' ultra-compact mixing console designed by Alex Cooper, complete with FireWire multi-channel digital audio interface, XL3 EQ and Propellerhead recording and processing trial software bundle. The VeniceF is the first all-new Midas product to be unveiled following the Music Group's acquisition of Midas Klark Teknik.

"VeniceF is the first professional analogue live-sound console to feature a multi-channel digital audio FireWire interface, and, as such, heralds the creation of a new genre of hybrid live audio consoles," said Midas and Klark Teknik Brand Development Manager Richard Ferriday. "This proves that it is possible to have the best of both worlds. Digi-log goes Midas."

Treats All Round

To the accompaniment of champagne and canapés, Optocore announced new firmware for its DD4ME MADI network device to allow consoles from Digidesign to operate on its network. The firmware enables the coaxial (BNC) ports to function not as MADI, but as Digidesign Venue's proprietary coaxial digital snake. "With this release, Digidesign's Venue consoles and stage racks can be connected via a DD4ME to the Optocore network," stated Optocore founder, Marc Brunke. "The audio flowing between the Stage Rack and Console (or vice versa) can be output via other Optocore devices in the network, thus enabling networking functionality to Digidesign products."

Positioned as the digital mixing solution for all sizes of sound company or user, the debutant Soundcraft Si Compact Series was billed as "a power-packed range of digital consoles that brings all the experience of Soundcraft's digital mixing platforms to a very affordable price level for tour sound, corporate event, house of worship and theatre applications, amongst others".

DiGiCo's Little Red Box and Little Blue Box are two compact add on units that quickly and simply expand the connectivity of DiGiCo consoles.

There was considerable activity in the loudspeaker sector. Martin Audio's Multicellular Loudspeaker Array (MLA) took the top prize at this year's PLASA Awards for Innovation. Winners of the Awards were announced in a special presentation during the show, and after a hotly contested nomination process MLA headed the list of 62 products entered.

For the third time in recent years, the Italian manufacturer Outline received an Award for Innovation, thanks to its Mini-COM.P.A.S.S. iMode vertical line array. The judges noted: "This loudspeaker's combination of generic IT and innovative line-array technology represents a step forward for the industry in systems integration. The cabinet's built-in web-browser support makes it possible to control a complete loudspeaker array from a plethora of industry standard devices."

Nexo offered the world debut of its 45°N-12 monitor loudspeaker, featuring a new concept in stage sound - that of line monitoring; TOA Europe highlighted the Type H line array loudspeaker and Avid introduced the M-Audio GSR active sound reinforcement speaker series for musicians and DJs who perform in small to mid-sized venues.

Funktion One formalised the appointment of no less than six new international distribution companies: for Canada – Audio Distributors International; for Taiwan – Audio 6; for Malta – Fusion Sound; for Lebanon – Mamari Freres sarl; and for South Africa – Metropolis Sound. At the same time, a new UK-based company called Solution 1 Audio and headed by Chris Hawkes, will be handling Funktion One's distribution in France, Portugal, Belgium and Morocco.

Tony Andrews, founder of Funktion One, commented on the show, "If you're not here, people wonder what's happened. It's always been good for us, we enjoy doing the demo room and we get a lot of knowledgeable people who like good audio, and that's what we tend to be about."

Among the many who were singing PLASA's praises was Karl Christmas, Deputy General Manager at Yamaha who declared: "From Yamaha's point of view, for professional touring sound, PLASA Show is one of the key shows. We see visitors from all over Europe, the far East, and other far-flung places, so when we've got important things to say the PLASA Show is one of the places we always look at to launch products."

Show Director Nicola Rowland concluded: "The universally positive feedback and the strong visitor figures would be satisfying under any circumstances, but in the current economic climate it's a strong result for our exhibitors and for the show itself.

"Numbers alone were only part of the story. We've had a lot of enthusiastic comments about the overall atmosphere, the vibe that was evident around the show floor and the high quality of visitors, which led to a serious amount of business being conducted." We'll drink to that.

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A Wwise Choice for Crackdown 2

The use of audio middleware in videogame production continues to expand apace, with Firelight Technologies' FMOD, Audiokinetic's Wwise and others increasingly playing a key part in delivering cutting-edge interactive music, sound, and dialogue content. One of the latest audio middleware-laden titles to hit the street is *Crackdown* 2. John Broomhall talks to Microsoft's Kristofor Mellroth who headed up audio direction for Ruffian Games' latest Xbox360 offering.

Mellroth: "Competition in the middleware market is a good thing and works to everyone's benefit. We have no specific mandate about tech in Microsoft – we evaluate on a project-by-project basis and all our audio directors become well versed in every option available. But as a basic concept, audio middleware makes a lot of sense to me – a fully featured solution right out of the box that would take multiple years to develop from scratch. Sure, there may be some features you don't necessarily use, but it's all there at your disposal should you need it. Meanwhile, brand-new features come online as you continue to develop your game. The support staff for the code-base is outside of your own dev-staff – so they can be investigating a hot fix for a problem bug whilst your own people stay focused on game features. On other titles I've been involved with which have used internal audio tech, tools rather than game features have eaten up a lot of the available audio programming time. I'd rather work with people in a creative capacity... So using Audiokinetic's Wwise middleware turned out to be one of our best early decisions – and we pushed it to the max using run-time DSP technology like Soundseed Air a ▸

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great deal. It's a big part of why the game sounds the way it does and we've also been able to rapidly augment Wwise with both our own and licensed third-party plug-ins."

The clear and present danger of densely-packed action games like *Crackdown* 2 littered with thousands of sound triggers, is a clear-as-mud, cacophonous mix – too many sounds fighting for space along with dialogue and music underscore. Being very aware of this, Mellroth and his team gave quality time and attention to setting up dynamic mix behaviours using the middleware tools and then gathered together key team members for a solid period of dedicated mixing and balancing. Mellroth: "It starts with voice management clamping at master buss level and then at sub-buss level, limiting how may sounds an object generates – for instance, you don't want to hear all enemy footsteps so we clamp to four and kill the oldest. We found Wwise can handle huge amounts of voices without a lot of overhead but you don't necessarily want them all playing. We allow 100 voices in the retail release – unclamped it's 500. Most are culled for aesthetic reasons – to mitigate the cacophony issue. Then there's tons of micro-ducking – the player's weapon-fire ducks their movement sound. Hitting someone with their fist will duck the ambience. When standing still after jumping around, the ambience comes up a lot in volume. And so on… The Wwise auto-duck feature is cool but real side-chaining will be even more useful and intuitive when it comes."

The final mix phase took place Microsoft's Sound Lab facilities for five solid ten-hour days. "We split our time between the large theatre and the smaller, quieter 'Mix1' for comparative listening. The driving force was to achieve dynamic range – we have 24dB between footsteps and very large close explosions (and we provide a user-controlled limiter for small speaker TV playback). As well as the technical basics of ensuring you're not overloading the sub and generally getting a good balance, a game like *Crackdown* adds complexity with all the dynamic mixing and also things like radius thresholds for determining when you start to hear a sound – critical in co-op. You have to ask: When should I hear this thing? When does it become important to me as a player?

"The whole mix approach is designed to give focus – if you're in combat, that's combat sounds; if racing, it's vehicle or Foley; during melee you get the whooshes, impacts and deaths. If you're just observing, you'll hear all the detail of a fully simulated sound world. Just stand and listen to the traffic – it's pretty cool!"

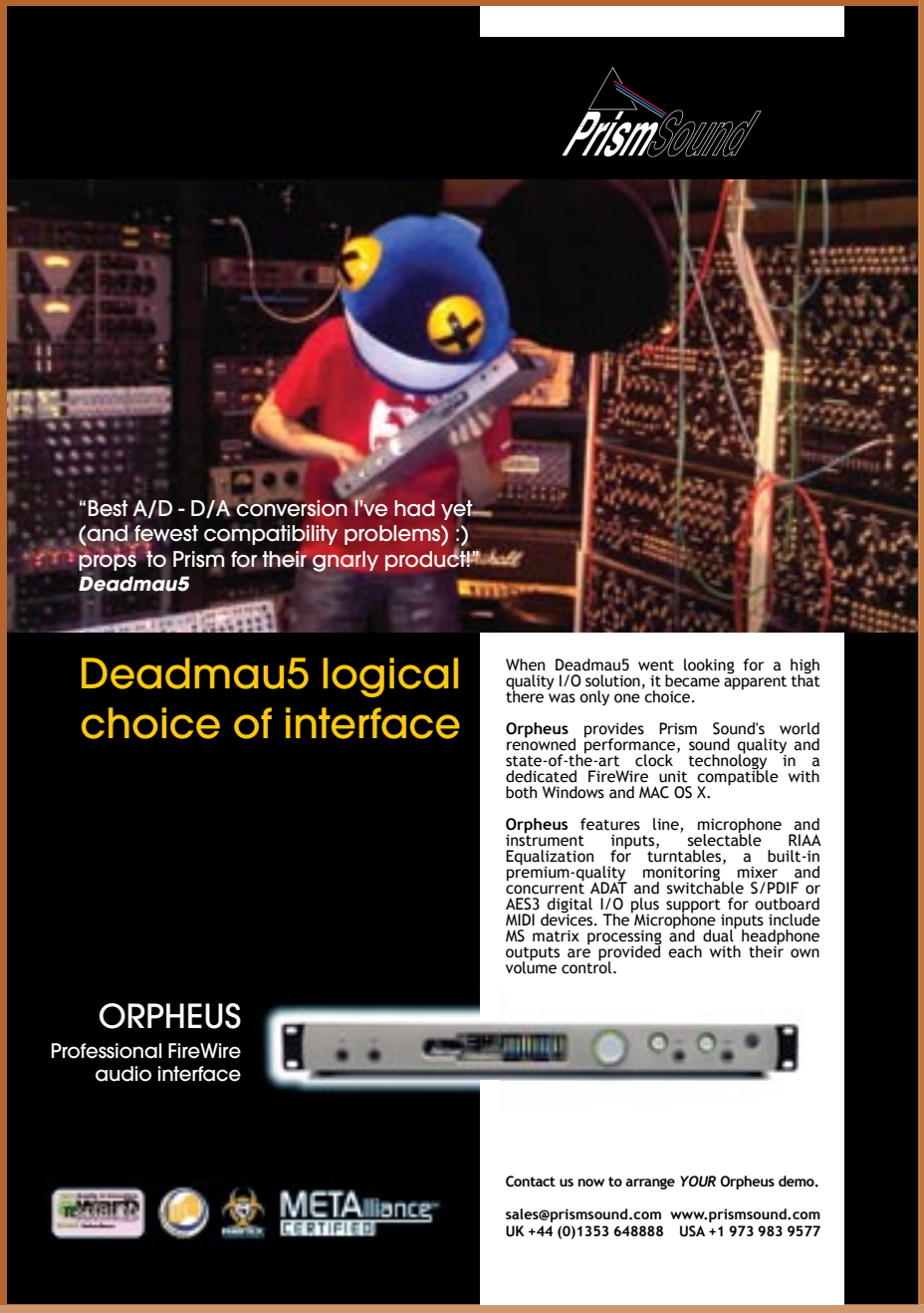
INFORMATION

Audiokinetic Wwise

www.audiokinetic.com

Crackdown 2

www.xbox.com/en-us/games/c/crackdown2/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APOGEE ONE

Single-channel recording solution

The ONE is Apogee's latest Mac-only, low-cost portable single-input-channel recording solution, which nevertheless maintains the company's legendary commitment to audio quality. STEPHEN BENNETT shares his experience.

I've been using an Apogee Duet extensively over the last few years and can confirm that the One is, to my ears at least, almost half a Duet – albeit with a few features missing like the ultra – high sampling rate. However, the ONE has with few of its own tricks up its diminutive sleeve – although why it's not call the 'Solo' is anybody's guess.

Going For The ONE

Housed in a black, plastic case about the size of a fat mobile phone, the only physical control on the unit is the central silver knob. LED indicators and the internal microphone complete the front panel, while the top of the unit sports a USB interface and a socket to connect the microphone and Line/Guitar inputs, which are both on flying leads. This is my only concern with the physical nature of the One; if you lose or break the lead or socket, you're basically stuffed. As you have to carry this lead around with you at all times, I'd have preferred it if Apogee had made the unit fatter and stuck in a combo quarter-inch XLR combo socket – although there are a few advantages to having a small extension lead effectively built in. Otherwise, the ONE looks like it'd take the knocks of a life on the road in its stride. Usefully, the microphone input also provides 48V phantom powering. At the bottom of the interface, a single 3.5mm socket can be configured to output signals to headphones or studio monitors and, although the ONE is a single input-channel device, it can, of course, output stereo when playing back from any software on the Mac's. Apogee also provides a range of accessories for the One, including a microphone standmount, a tabletop stand and a carrying case available to buy from www.apogeedigital.com.

ONE's Installation

After downloading a Snow Leopard compatible driver from Apogee's website (as the one supplied was Leopard only), installation went smoothly – although it did annoyingly require a reboot of my Macbook Pro – but, to be fair, Apogee's software is not alone in this regard. Plugging in the ONE to a spare USB port causes it to flash into life. Unless you've turned the feature off on subsequent connections, plugging in the One causes a pop-up window to appear which asks if you want to make it your default audio device – which could be useful if it's your only interface. To select inputs and outputs you'll need to run Apogee's installed Maestro software (image). Here, pull-down menus allow you to select input types (including phantom power) and where you can choose if the output is to be routed to amplifier or headphones. Once an input is selected, pressing the front panel knob swaps between inputs and outputs and turning it sets their respective levels. The mixer section in Maestro, can be used to provide hardware based latency free monitoring, while the unit itself performed happily at buffer settings of 128 samples in Logic Pro 9.

ONE's Usage

The internal microphone is brilliant for capturing those inspirational moments and the quality is enough to even use the recordings in non-mission-critical situations. Comparing the microphone pre-amplifier to my Duet only enhances the impression that the ONE is its direct sibling – the results are clean, un-coloured, and only a spit away from the ones from my Metric Halo UL-N, even on critical sources such as acoustic instruments or voices. Maximum sample rate is 48kHz, but this shouldn't pose too many problems amongst the One's intended user base and, more importantly, the bit depth can be set to 24. The Line input also acts as a guitar pre-amp and I found that it provided the correct resistance load for my Stratocaster. I've often noticed that a lot of the complaints that people have of computer-based guitar processing are actually posted by people who are using standard line inputs on their interface – having the correct impedance available for guitars at an input improves the sound of amplifier simulations enormously. The same quarter-inch input socket also takes line level sources, such as a keyboard of CD player, in its stride.

ONE's Conclusions

Apart from my concerns about the physical nature of the audio inputs, the ONE is a sterling performer, providing the audio quality we've come to expect from Apogee in an extremely portable package. At around half the price of a Duet, the decision on which interface to have will depend on whether you need to record stereo sources or not. Although you may be able to buy a USB interface with more features at a comparable price point, you're unlikely to get the same quality of microphone pre-amplification or digital converters as the ONE. The QuickStart guide concentrates on getting the ONE up and running in Garageband, which may lead the casual observer to conclude that Apogee doesn't consider the ONE as a contender for serious recording duties – however, they'd be wrong in these assumptions, as a more thorough look at the full Users Guide gives you a much better idea of the full capabilities of the ONE. Having an interface with a single channel of Apogee pre-amplification along with a reasonable quality on-board microphone may be all you need to complete that magnum opus, that dialogue, or that effect, before the inspiration gets frittered away by all the faff that accompanies setting up a more extensive recording system. In those situations, the ONE may be the one for you.

INFORMATION

£ Apogee ONE GB£ (exc. VAT)

Ⓐ Apogee Electronics Corp. 1715 Berkeley St, Santa Monica, CA 90404, USA.
Ⓣ +1 310 584 9394.
Ⓦ www.apogee digital.com

Ⓐ UK Distributors: Sonic Distribution, 3 Hunting Gate, Hitchin, Herts SG4 0TJ, UK
Ⓣ +44 (0) 845 500 2 500
Ⓦ www.sonic-distribution.com/uk

THE REVIEWER

STEPHEN BENNETT has been involved in music production for over 25 years. Now based in Norwich he splits his time between writing books and articles on music technology, running his own Chaos studios and working in the Electroacoustics Studios in the School of Music at the University of East Anglia. He's also a filmmaker with several music videos and short films to his credit. www. stephenjamesbennett.co.uk

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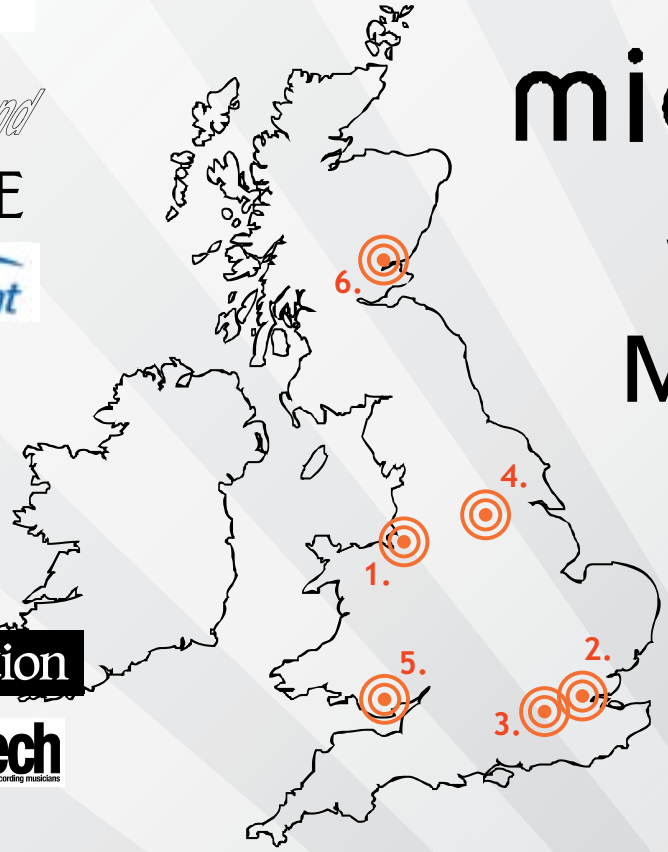

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OLYMPUS LS-5

Linear PCM Recorder

JERRY IBBOTSON had some fun with a xylophone, a washing machine and the man that does the hedge, all in the name of audio recording.

I'm trying really hard not to sully this review with the phrase "less is more" but it's a struggle. I've just been playing with a very neat little recorder from Olympus which is the spitting image of a neat little recorder which I played with earlier this year, only it's cheaper.The new LS-5 looks identical to the LS-11 that I was rather impressed with way back at the start of 2010. Same slim, almost dictation-machine-like body (not surprising given Olympus's history of such devices). Same button layout and LCD. Same pair of microphones adorning the top. Oh, but there is one visual difference: the new machine is blue. Which I happen to think is cool.

In fact, to find any major differences you have to look at the specifications of both machines side by side. The LS-5 can record stereo wav files at 96kHz, 24-bit, as can its big brother. It can also record MP3s and WMA files, as can the LS-11. But wait: the new device has only 2GB of internal memory, whereas the older one has 8GB. And the LS-11 comes with a remote control, a case and a copy of Cubase LE, whereas its sibling doesn't.

Given that there's a price difference of around GB£80 in the street price of the two recorders, I have to ask, is the LS-5 a bargain or a false economy? Well to start with, let's address the storage issue. The 2GB of internal memory in the new recorder can still handle 55 minutes of stereo audio at 96kHz, 24-bit. Obviously, 8GB is better but that's still not bad. And bear in mind you can also use SDHC cards to increase the storage capacity further.

As for the accessories... Well, I've never used a remote on a recorder although I can understand how it might come in handy in some situations (a press conference for example, where the recorder has to be placed on a table). A case is always handy but something you can live without, and most people will already have their own audio software, so a copy of Cubase LE is likely to languish at the bottom of the office drawer.

How Does It Sound?

I found the LS-11 easy to use and with good recording quality but with some handling noise from that slim body. The LS-5 is… identical. I set it to 96kHz and set about recording some sound effects. My two-year-old son has recently acquired a wooden xylophone that makes a really nice sound (except when it's being played in the back of the car as we head down the A1). It's the kind of thing that would be useful in making toy sounds and definitely worth adding to the library. I had the LS-5 at home with me and recorded some "bonks" in our dining room, with the mic sensitivity sent to low and the machine held quite close to the xylophone. There was some background noise (the hum of a washing machine) from the other room and I didn't really expect the recording to be of any use.

Back in the studio I was surprised to hear that not only was the recording clear and sharp, with no pre-amp hiss, but the background noise was non-existent. The proximity of the two mics to the xylophone, along with the low sensitivity setting, had been enough to cut out the sound of my smalls going round and round.

Another opportunity to record at home turned up in the shape of the man who came to trim my garden hedge. Yes, I know this makes me sound like Lord of the Manor but I'm a danger to myself and others when around power tools. Plus Mrs Ibbotson claims it's money well spent, as I'd just end up making the hedge look like a phallic object and shock the neighbours.

The problem was, it was rather a windy day and the Olympus's small foam windshields were likely to take a bit of a battering. Luckily, I'd spoken to the nice people at Rycote a few days before and they'd sent me one of the windshields they tailor make for the LS range of recorders. This wasn't on the market when I tested the LS-11 so it would be a good chance to see how it performs.

I've used a similar Rycote on my Marantz PMD 620 mini recorder and it's been a godsend. The version for the LS is bulkier, with more internal material, but fits over the machine's microphones easy enough. It makes the recorder look like it's grown a massive grey afro but it certainly does the job. The recording of my hedge trimmer was wind distortion free. Hoorah.

But in moving the recorder around to get into the right position I managed to conjure up the fault that lies with a lot of small, hand-held machines: handling noise. Every one of the pocket-sized recorders I've tested recently has had this problem. Even reaching for the volume dial on the side of the Olympus's slim body is enough to generate rattles. It's not as bad as some, but still a pain.

But lo, I think I've found a solution. Lying at the bottom of my bits-and-bobs drawer was a tiny tripod that I've had for years but never used. It's the kind of thing you get with compact cameras and stands about six inches high. By screwing it into the tripod thread in the underside of the Olympus I had a small recorder grip (patent pending). Coupled with the Rycote windshield, the recorder is now a lot more flexible and able to cope with windier conditions and more movement.

In Conclusion

I like this machine. It's remarkably well priced and highly specced and is as close to the costlier LS-11 as makes no difference. I've seen them on sale for £155 which, for a machine of this quality, is a real bargain. I'd recommend investing in a Rycote windshield for it and having a look out for one of the diddy tripods that makes a useful grip. Yes, okay, I have to say it. Less is more.

INFORMATION

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THE REVIEWER

JERRY IBBOTSON runs Media Mill, a York-based audio production company started in 2000 that specialises in sound for video games. Prior to this, Jerry was a BBC journalist for ten years, ending his spell with the Beeb as a reporter and newsreader at Radio One Newsbeat.

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TRUE SYSTEMS P-SOLO

SINGLE-CHANNEL MIC PRE / DI

It has a number of microphone pre-amplifiers in its own range. SIMON TILLBROOK looks at the latest addition this range, the TRUE Systems P-Solo.

TRUE Systems of Tucson Arizona is the product brand name for Sunrise Engineering and Design Inc, a company involved in the design and manufacture of professional audio equipment for a number of well-known pro audio companies.

Its latest product, the P-Solo, is a single-channel mic pre/DI that is presented in a red anodised case, designed for desktop mounting.

Following on from other pre-amps in the True Systems range, the P-Solo utilises some of the designs from the Precision 8 and P2 units.

The True Systems P-Solo is a fully-balanced, dual servo design with a DC coupled output, so a transformerless architecture and the high-voltage levels used by the P-Solo give us an extended overall dynamic range.

The figures for the True Systems P-Solo are impressive on paper.

There is an amazing frequency response of 1.5Hz to 500kHz (+/-3dB) with a maximum input level of +25dBu and output level of +31dBu. A THD distortion figure of 0.0008% at +26dBu 100kOhm load and noise at a very low -132dB all suggest a very transparent clean sonic nature.

The rear of the TRUE Systems P-Solo is simply a balanced XLR input and a very handy dual balanced XLR and TRS output that can be used simultaneously. They are not electronically isolated from one another, so using an unbalanced cable on either would result in both outputs becoming unbalanced.

The front panel of the True Systems P-Solo has both phantom power and a HPF switch with a turnover frequency preset to 80Hz. A four-segment LED level meter begins operation when receiving a signal at -24dBu then additional illumination at +4 and +12dBu, finishing with an OL indicator at 26dBu (5dB below overload).

Above the instrument/DI input is the large gain rotary control used for both input source options.

When used with the microphone input, the normal fully variable gain range runs from 15.5 to 64dB. When the rotary gain control is set fully anticlockwise it clicks into an input attenuation mode for use with high SPL signals. In this position, gain is pre set to around 6dB.

The instrument/DI input of the True Systems P-Solo gain range is from -4dB to +44dB and pre-set to -14dB in input attenuation mode.

Use

I used the TRUE Systems P-Solo on a number of acoustic sources with a couple of other clean pre-amps for comparison.

The clarity did not change throughout the whole of the wide available gain range.

As a pre-amp designed to be fully transparent, rather than adding colouration, the True Systems P-Solo delivered stunning results with every test. In a blind comparison test with four colleagues, the P-Solo won on every occasion with all present. I do not get that kind of result very often.

Conclusion

On a cost-per-channel basis the TRUE Systems P-Solo may initially seem pricey to some, but what the tests demonstrated was a pre-amplifier of pure, clear sonic quality that outshone others many times the price.

Where a clean transparent pre-amplifier/DI is desirable, you will find the True Systems P-Solo hard to beat.

THE REVIEWER

SIMON TILLBROOK is the Principal Music Tutor at Islington Music Workshop in London. The rest of his time is spent as a freelance engineer, mainly in the USA.

INFORMATION

£ TRUE Systems P-Solo GB£499 (exc. VAT)

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Ⓣ +1 520 721 2735.
Ⓦ www.true-systems.co.uk

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Ⓣ +44 (0)1923 693 756.
Ⓔ info@synthax.co.uk
Ⓦ www.synthax.co.uk

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WAVES

PAUL MAC talks to Hackenbacker's Nigel Heath about what it takes to create great sound on prime-time TV drama.

DOWNTON ABBEY

Downton Abbey is a new run-up at the costume-drama genre of TV programming. It's made for ITV1, a UK commercial channel, and features a long list of Queen's-English familiars plus an even bigger herd of humble servants. The main themes are the sociology, sins, and politics amongst both servants and landed classes and, more importantly, the places where those two mingle. The mixture is set with lashings of soap, farce, and stereotypes into a classy production that cannot fail.

Downton Abbey's look and feel is right up there with the best of current UK television production, and credit for that must be shared, at least in part, amongst the team responsible for audio post production – all hailing from Hackenbacker Post Production, based in Soho, London.

Heading up that team was Hackenbacker's Founder and Managing Director, and Re-Recording Mixer on the *Downton Abbey* project, Nigel Heath. While several directors worked on the series, the lead Director, notes Heath, was one Brian Percival, who directed the first and final episodes. He set the creative benchmark for the entire series, including the sound. The audio team took notes from Percival at the start of the project, and defined a sonic strategy for the Abbey.

Dramatic Devices

The simplest, yet most important demarkation of soundscapes within *Downton Abbey* is found in the physical (and class) divide between the downstairs areas, where the servants are clattering and bustling about, and the more serene upstairs environments where the masters prevail. "The compressors are running at neg-twenty downstairs, and upstairs there aren't any," says Heath.

"Downstairs sounds like *Hotel Babylon*, upstairs sounds like *Brideshead Revisited*... We turned their vision into a reality. So Alex Sawyer will record in post-sync, group manic activity off-screen downstairs, while upstairs you don't hear anything... The servants in the series are essentially a silent army: upstairs they're busy but you don't hear them; downstairs they are able to be themselves and clatter and bang, and curse when they drop the pan."

> "On Downton Abbey we largely finished at six, and our mix reviews were delightfully short, and we were laying back at seven o'clock each night."

The one exception to this is the beginning of the first episode, which starts with the servant army preparing the house for the imminent waking of the family. In this brief time they bring their bustle upstairs and you feel the mounting pressure of time until the master awakes – then they all disappear downstairs, carrying with them the Hackenbacker compressors.

Incidentally, in a switch-back masterclass, there follows a brief moment of calm in the servants' dining room that lasts until a call-bell rings – a call to action that signals the start of normal business – the poverty, pride, and pandemonium of the servants' quarters, set against the quiet weight and wealth of their masters.

Left To The Best

Continuing through the episodes, the sound team is necessarily left to get on with what it does best. This is in contrast to many films, for example, where a focus on a single item can lead to micro-management from production people. "Yes, " agrees Heath, "On a TV series – through practicality because the director is undoubtedly grading when you're premixing – they really have to trust you and let you get on with it. If you don't achieve what they wanted first time, it means you're working nights.

"I'm glad to say that on *Downton Abbey* we largely finished at six, and our mix reviews were delightfully short, and we were laying back at seven o'clock each night."

NIGEL HEATH ON... SOUND DESIGN

I wanted to ask Nigel Heath about opportunity for 'sound design' on *Downton Abbey* but, more interestingly, I came away with a set of single quote marks for use around that phrase…

PM: Is there really a sound design element in costume drama?

NH: "Yes, I think there is. You've caught me on a personal hobby horse there. Sound design is a slightly over used term, which drives me slightly mad. If you look back at what people like Hitchcock were doing in the 30-40s, there's some great examples of great sound editing that you could call sound design if you wanted to. I also think that Adam Armitage has done some really nice sound editing for the show, that you can call sound design if you wish... But it's just good honest sound editing – fantastic vintage cars, fantastic environment sounds, and nothing obviously electronic.

If you can do something really beautiful on a minimal amount of tracks – maybe a beautiful summer's day atmosphere that really works with the story of two people falling in love or something, I think that's sound design – you can genuinely call that sound design, and Adam's done that in this show, Alex has done it with his background sounds for the crowds and things. So it's all the same, it's just good sound editing at the end of the day.

PM: "Does that make 'sound design' just a trendy phrase then?"

NH: "Yes... Did you notice how quickly I responded to that?

"It seems to be something that's just popped up over the last 10 years... There's nothing wrong with being a great Foley editor, great Foley artist, a great dialogue editor, a great background or effects editor. I don't think we need to hide behind those terms... That's just a personal view."

To give the sound department relatively free-reign on one of the more expensive production projects that ITV will embark on this year demonstrates a confidence in its people that Hackenbacker is rightly proud of. One secret of this success might be Nigel Heath's 'open door policy': "I literally prop it open," says Heath. "I'm not a fan of dead air around me, I like a bit of life. It also means that producers can come in, they can sit at the back and do e-mails and be part of it. I like to try and break down the formality of the mix period – they can come whenever they want, they can hang out."

In this way, Heath notes, the line between pre-mix period and final mix becomes smudged and there are no nasty surprises waiting in the wings. Heath: "You just find by the last day that you've ended up with your programme. You've done it... No-one's shocked or scared or afraid of new ingredients, because they've heard them since Monday.

"It's much more satisfying for producers and directors – and for me."

Dialogue Days

One crucial aspect of the sound in *Downton Abbey* is the dialogue delivery. It is clean and clear pretty much all of the time. "We're on ITV prime-time drama," says Heath. "... Competing with other channels. We don't want anyone to miss a word of the script.

" I do tend to tease the end of lines, so when people naturally run out of delivery breath, you're shaping the lines, you're teasing the writing out of everybody's mouth and really extracting the meat of what's there.

"Some of it's very rapid fire, it's very witty. If you drop a word, you might miss something quite interesting, funny, or cool. ...And we shouldn't ever assume that people are listening at the levels that we listen to in studios. You've got to remember that people are listening in non-ideal circumstances at home, and the phone might ring, ▸

NIGEL HEATH ON.... ADR

Much of the dialogue work on *Downton Abbey* was down to Alex Sawyer, who spent time on production sound with tools from iZotope, Waves, and more. This helped enormously and in the end, there wasn't a huge amount of ADR to do. Also, because the script was so complete, there were few additions to deal with. Even so, Nigel Heath was complimentary about the production resources, and typically generous with his wisdom.

NH: "One thing also to be said about the producers of *Downton Abbey* – they were willing to assign enough time for the ADR. We should never forget that it's very hard for an actor to come in, to run through Soho to get to an ADR theatre, and then lay down a performance that matches what they did after being on the set for nine weeks. These producers really understood to allow enough time, and I think that's something people have forgotten a little bit in drama.

"People who maybe don't work with actors as frequently as they could have done, or have never done, who don't realise that by the time an actor's come in, said good morning, cooled down from running through Soho, had a cup of tea, spoken to the director, got back into their role again – it takes time.

"It's important that producers and post production supervisors really remember the job those actors have to do, and also what the mixer has to do – they have to listen to a scene, recreate the miking the best they can with totally different equipment in a totally different environment, but get close to a sound that the mixer can work with, and this all takes time. We were really blessed in this show that the producers understood that and were willing to be advised on how long certain things would take. Hats off to them because there aren't enough people who do that.

"And it's great value for money because you use everything that gets shot. Rather than shoot stuff that's no good at all, because the actor sounds hurried or rushed or stressed or nervous and then ending up not using it – you have to use originals. So in the middle of a beautiful scene you hear the technology doing its best to get rid of an aeroplane because actually the actor couldn't do the ADR because he or she was too stressed.

"Time is the best plug-in of all... you can have that."

Project – Downton Abbey, ITV1
Facility – Hackenbacker Audio Post Production

Nigel Heath – *Re-Recording Mixer*
Adam Armitage – *Sound Effects Editor*
Alex Sawyer – *Dialogue Editor*
Stuart Bagshaw – *Foley Editor*
Keith Partridge – *Foley Engineer*
John Rodda – *Sound Mixer*
Jessica Ward – *Dialogue Editor*

NIGEL HEATH ON... LOUDNESS

Costume drama is one of the most-used examples when loudness is discussed along the fabled corridors of peak-programme, and the issue is getting more than its fair share of exposure right now, thanks to the current explosion in loudness standards and technology. Happily, *Downton Abbey* is a costume drama on a commercial channel, and a perfect opportunity to get stuck into the issues. Interestingly, Heath shoulders much of the responsibility for the viewers' comfort himself, while also elbowing the ribs of other mixers who may have forgotten their own duty of care...

NH: "On *Downton* we made a conscious effort to open the programmes at a level that's comfortable for the viewers coming out of commercial breaks for continuity, and then we kind of come into our world, hopefully bringing the viewers with us – if we haven't, then I've failed – then climbing back up into the commercial break so that no-one's reaching for their remote controls. I would love to hear, when *Downton* comes out, that people aren't grabbing for their remotes to turn the commercials down. I think we descend into our world quite nicely, I think we enjoy it, and then we come up into the commercials over a period of time. And I'd like to think we were successful with that, and I think we were.

"If there's a door slam three minutes before there's a commercial break, up the level goes goes – or rather, the door slam stays where it was, the dialogue after it comes up a little bit. It's a bit like a series of locks in a canal, you can't just do it all in one go or you get wet feet. But if you're sneaky about it – praying for a door slam, hoping for a cupboard to be thumped, or someone to lose their temper. It's a trick... it's an old trick. But I think it works.

"I think that when people say, 'hey the commercials are too loud', I think sometimes maybe the programmes have forgotten what they're about – forgotten the way that they're viewed and how they're reproduced... There are some great commercial mixers... It's a real skill and a real art, and of course it keeps the channels going... There's no need for people to complain; there's no need for the commercials to seem to be too loud.

► baby might be crying, something's cooking in the kitchen and the microwave goes ping."

Music For Effect

Oddly, my impression of the music in *Downton Abbey* after seeing a preview of the first episode was that there wasn't much in it. I had trouble recalling moments where music was dominant. This is odd, because, according to Heath: "I think there's probably 20-odd minutes in the TV hour. Half the show has got music in it." He thinks that the high quality John Lunn score and Abbey Road recording will contribute a lot to the potential demand for the series in other territories.

> "You can hear a happy show, and you can hear a grumpy one. You can hear a committee, and there was no committee on this. There were people who had a vision, which is very different to a committee..."

So, why don't you come away with grand themes still pounding your head? "The thing that we were very conscious of is that the music shouldn't lead your emotions," says Heath. "And it was mixed in such a way that the character would deliver a line that the music responds to, and the music would come up either through the line or after it, but never before. The music never once pre-empts what you're supposed to think as a viewer, purely for the reason that if it does, you hear it... You've got an Oscar-winning writer, and these are good words; we should only react to them; we don't need to help them. And that's a really important thing."

So the music in *Downton Abbey* reflects the scene, but doesn't set it. That may also explain an overarching impression of clear, crisp dialogue and immaculate comic timing. The music isn't getting in the way and blurring the leading edges of the delivery.

A Happy Show

Heath considers *Downton Abbey* to have been a complete success. "It's one of those jobs," he relates, "Where you finish it, and you're thinking, 'you know what, that was a really nice thing to have done'. It's the combination of really pleasant clients, great directors, nice people that makes a huge difference, and we've always maintained that you hear that in the final result.

"You can hear a happy show, and you can hear a grumpy one. You can hear a committee, and there was no committee on this. There were people who had a vision, which is very different to a committee...

"And we had the benefit of having a very supportive producer and executive producer who really understood the value that sound could bring to their show, and that's very important. Liz Trubridge, the Producer, and Gareth Neam the Executive, both really understand the value of good sound in a drama."

DOWNTON ABBEY

Downton Abbey is showing on ITV1, at 9pm on Sunday night. For information visit: www.itv.com/dramapremieres/downtonabbey/

Sonnox Post

The Sonnox Post collection is an exceptional audio processing solution for post production. It includes the award-winning Sonnox Restore suite for highly accurate audio restoration, the legendary Oxford EQ and Dynamics plug-ins, the comprehensive Oxford Limiter and Reverb with their many presets and the versatile SuprEsser dynamic EQ.

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Sonnox Post (Native) : ~~£1,562~~ **£1,093**

Sonnox Broadcast

Sonnox Broadcast is a collection of world-class plug-ins selected to provide high quality processing and precision control for broadcast production. It comprises the renowned Oxford EQ and Dynamics plug-ins, the popular Inflator for maximizing loudness, the preset-packed Oxford Limiter, and the Oxford SuprEsser for fixing problematic frequencies.

Special introductory pricing until Oct 31st 2010
30% Off

Sonnox Broadcast (TDM) : ~~£1,131~~ **£792**

Sonnox Broadcast (Native) : ~~£579~~ **£405**

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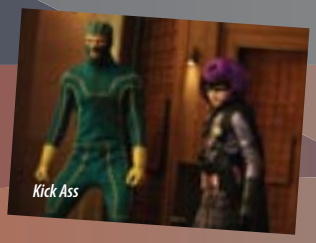
UK Audio Production Awards
Ready To Go . . .

2010 marks the fifth year of the UK Screen Sound Awards, otherwise known as The Conch. The venue is the Floridita in Soho (100 Wardour Street), a latin-inspired venue famous for its 1930s-style decadence and glamour. The evening begins at 7pm with a welcome reception hosted by the Pinewood Studios Group. There'll be food served before the Awards Ceremony, and afterwards Avid is sponsoring the after-show party.

Tickets are priced at £85 + VAT for UK Screen Association members, and £100 + VAT for non-members, which includes the food, and two drinks tokens.

You can get full details, and book your tickets online at www.ukscreenassociation.co.uk/conch or by contacting Sadie Groom at sadie@bubblesqueak.co.uk

Harry Potter and the Half Blood Prince


Kick Ass

Nanny McPhee and the Big Bang

UK Screen Awards – The Nominations

Film Re-recording Mixer – Sponsored by Avid
Chris Burdon – De Lane Lea
Mike Dowson – Pinewood Studios Group
Scott Jones – Molinare
Stuart Hilliker – Boom

Film Sound Editor
James Boyle – Independent
James Mather – Independent
Niv Adiri – Sound 24

TV Dubbing Mixer
Adam Severs – De Lane Lea (previously Yorkshire TV)
Billy Mahoney – Molinare
Howard Bargroff – Pepper
Paul Hamblin – Boom

TV Sound Editor
Chris Roberts – Ascent 142
Ian Wilkinson – Independent
John Rogerson – Halo
Lisa-Marie McStay – Molinare

TV Entertainment
Outnumbered
Top Gear
Trawlermen

TV Drama
Luther
Spooks
Wallander

TV Film/ Documentary
Mugabe and the White African
Richard Hammond's Invisible Worlds
Wonders of the Solar System

Commercial/ Promo
BBC Formula 1 Promo
Guinness *Bring it to life*
Nike *Write the future*

Film Soundtrack Over £10 Million
Nanny McPhee and the Big Bang
Harry Potter and the Half-Blood Prince
Kick Ass

Film Soundtrack Under £10 Million
Moon
Nowhere Boy
The Boys Are Back

Film Mix Facility – Sponsored by MediaPros
Anvil Post Production
Goldcrest
The Pinewood Studios Group

Sound Design Facility
Boom
Phaze
Sound 24

TV Mix Facility – Sponsored by Scrub
Boom
Molinare
Pepper

Commercial/Promo Facility
Angell Sound
Grand Central Studios
The Jungle Group
Wave Studios

Most Promising Newcomer
Adam Davidson – Ascent 142
Steven Lane – Grand Central
Dan Piggot – Sumners
Gerrit Swanepoel – Halo

Past Winners

Looking back, the Conch Award winners of 2009 were...

Best Audio on a TV Entertainment Programme
Top Gear – Evolutions

Best UK Film Re-Recording Mixer
Mike Prestwood-Smith

Best Film Soundtrack Under £10 Million
Slumdog Millionaire

Best Audio on a TV/ Film Documentary
Man on Wire, Molinare

Best TV Dubbing Mixer
Paul Cotterell, LipSync

Commercial of the Year
Hovis *Go On Lad*, Wave

UK's Most Promising Newcomer
Emily Nuttall, Sumners

Best Audio on a TV Drama
Doctor Who, Bang Post Production

The UK Screen Fellowship Award
Keith Grant

Best UK Film Sound Editor/Designer
Eddy Joseph

Production Sound Mixer of the Year
Simon Hayes

Best UK TV Sound Editor/Designer
Ben Norrington

Best Film Soundtrack Of The Year Over £10 Million
Quantum of Solace

Best UK Commercial Sound Facility
Angell Sound

Best UK TV Sound Facility
Evolutions

Best UK Film Sound Facility
Molinare

Best Foley Project
Quantum of Solace, Soundelux

Audio Media Unsung Hero Award
Winner: Andy Picton, The Pinewood Studios Group
Winner: Trevor Griffin, The Pinewood Studios Group

An Interview with Ted Scott

DAVID MACKENZIE talks to Ted Scott, recipient of the 2010 Fellowship Award, about his life and career.

On October 13 this year, the UK Screen Sound Association will present the fifth annual Conch Awards. The event, which is to take place in Soho's Floridita, will bring the UK audio industry together to celebrate the very best of British talent and facilities.

Perhaps the most prestigious of all the awards presented at The Conch is that of the UK Screen Fellowship Award, in recognition of an outstanding contribution to the UK sound industry. This year's recipient is Ted Scott.

Right Place, Right Time

Ted has had a remarkable and distinguished career over the course of nearly 60 years. Despite this, he is modest, and talks of how he owes much of what he has achieved to good fortune.

Speaking of plans for his acceptance speech, Ted commented, "One of the things that I'm going to say, and I'm not going to say very much, is that I've been very, very lucky in life. I've always managed to be in the right place at the right time, working for the right firm, and doing the most fantastic shows that would never be done, ever, now. I'm very thankful for that."

Perhaps some of the humility and modesty with which Ted approaches his Fellowship can be put down to his friendship with American TV Director, Dwight Hemion, who worked on the final shows of Bing Crosby, Elvis, and Frank Sinatra. He was also the recipient of a record-breaking 47 Emmy nominations.

"I did lots and lots of shows with him," recounts Ted. "He was a lovely man, very quietly spoken, and very successful. He actually died about 18 months ago in the states. And I found out that throughout his lifetime, he'd been nominated for and won all of these awards, and he never once mentioned that to me. He was a really nice guy."

Unconventional Background

Growing up in post-war East London, Ted made an unconventional entry into the sound industry. With an education that was brought to an abrupt halt by the advent of WWII at the age of 14, and an industry dominated by top graduates, Ted beat the odds to craft a unique career.

"After I'd served my national service, I was at a real loss as to what to do. I was playing the saxophone and the drums, but not with great success. I told my very old friend Kenny Claire [renowned drummer and percussionist] that things were very bad, I had no work, and I didn't know what to really do with my life. He said that there was some fellow that he knew who was bootlegging American Jazz discs, and he thought that I might like to do this. I did, with great success, up until Esquire records, who were issuing some of the stuff, got rather upset about it and I ceased doing that. But of course at the same time, I was also going out doing bands, doing singers, and recording demos."

This work lead to Ted providing some services for radio Luxembourg, where he must have impressed someone because he was offered a job and stayed for four years. It was this period that lends Ted one of his proudest working memories.

"I recorded 156 shows of the Ted Heath band, which was the longest running radio band show of all time. It ran every week for three years. We got some great sounds out of the Heath band with very basic microphones, because we weren't actually geared up all that well. We did a very heartening job for the Heath boys."

Running With The Times

Ted has managed to stay relatively unfazed by technical innovations during his career. "I've never been all that technical," he explains. "I'm much more of a hands on sound mixer rather than how it all works. Once I'd left Luxembourg and I was at ATV, I was on a crew of about seven guys, and after I'd been there a year, I was a number one. I had guys on my crew who knew all of the technical stuff, so I could concentrate more on my sound mixing shows at the time."

The ATV studios occupied a significant and fondly remembered part of Ted's career. During this time, he worked with top acts such as Sammy Davis Jr., Glenn Campbell, Burt Bacharach, Bing Crosby, Cliff Richard and The Shadows, The Muppets, and many more that are far too numerous to recount here.

I thoroughly recommend Ted's personal website, www.tedscott.co.uk, for a fascinating account of his remarkable career, and such insights as the top sound recording tip given to him by none other than Gene Kelly.

Ted is now enjoying a full and active retirement with his lovely wife Sue, who is herself a successful TV producer with a BAFTA on the collective Scott awards shelf. All the best, Ted!

UNSUNG HERO COMPETITION

The winner of our Unsung hero competition, drawn at random from our lucky hat just for nominating in this year's Unsung Hero Award category, is **Lucy Allen**, post production manager at Halo Post Production.

Lucy wins the prizes kindly donated below:

sE Electronics VR1 – donated by sE Electronics

Steinberg Nuendo 5 – donated by Steinberg

Genelec 6010A (pair) – donated by Source Distribution

360° Producer

The Changing face of music production.

A music producer's role has changed dramatically over recent years. They are now managing and developing artists, and even recording demos. They've become the deal-makers in today's industry. PAUL WATSON collects insights from both sides of the Atlantic on the new age of the 360-degree Producer.

"There are lots of different ways that record producers seem to be changing, depending on what activities they're doing. Recording budgets are dropping; and people are spending less money making records, and signing fewer artists." Thus speaks Music Producers Guild Director Mick Glossop. He has been making records since the early 1970s, working with bands such as Magazine, The Ruts, and The Skids during the early punk scene, with his production credits stretching to an array of musical talent from many genres: The Wonder Stuff, Frank Zappa, John Lee Hooker, Lloyd Cole, and Van Morrison, to name a few. So he's well qualified to speak on all things 'Producer'. "In combination with that," he continues, "Technology has made it possible to make albums at home; and the internet has made it possible to distribute them online, so the unsigned industry is now tremendously vibrant. People are making music outside of the traditional route of being financed by a record company, so as a producer you have to be much more flexible in the way you go about interacting with artists... The 360 deal is one method."

> "What on earth is a 360 deal anyway? It's a meaningless thing at the end of the day; What you are really talking about is the net worth of the artist and what we should be doing is taking a share of that net worth."

Mick Glossop.

It's Your Money I'm After, Baby

When record companies recognised that sales were down, they consequently wanted to secure a share of the other income streams that artists enjoyed such as publishing, touring, and merchandise. This led to the conception of the 360 deal: a record deal that covers 360 degrees of the artist's income, where the record company brokers a deal with the artist that is all-encompassing in terms of revenue stream - essentially providing other opportunities to take a different slice of the artist's income.

Wallace Collins, a transactional and litigation lawyer based in New York City, explains that because none of the major labels own the studios anymore, the whole bottom part of the business has gone independent, and majors rely heavily on producers to not only decide on the artist, develop the artist, and make the demos, but to cut the masters and sometimes even help with their image. "A producer or production company signs the artist to basically a mini record label, so in effect the artist signs to some independent company in what's called a production deal," explains Collins. "So all his records – and maybe his publishing – are signed to this company and they then make the deal with the record label. So generally it's an artist signing exclusively to a middle-man who will then broker the deal with the label – or put it out independently, or digital, or whatever; they're still making their deal when they sign their rights to somebody at a very early stage."

This certainly seems to ring true – at least in part – in the UK also, as some of the producers at the MPG are doing a similar thing. Grammy award-winning MPG Chairman Steve Levine has his own label: Hubris Records; and has signed a number of new acts, including The Glitches, Natalie McCool, and Patch William, all of which he is producing records for. "Patch William didn't have management and I think Steve [Levine] is now kind of managing them as well," suggests Mick Glossop. "He is certainly looking after a lot of their day-to-day things, which is becoming more and more common in the industry. It's a question of being pro-active; if the record companies are signing fewer acts then there are fewer opportunities around, so the producer is becoming a mini record company or production company, much the same as they were doing in the 1960s. Phil Spector did that; Mickey Most did that with Rack Records; and Joe Meek did that too... It's not a new thing as such."

Scott Keniley.

Wallace Collins.

Tony Platt.

Best Placed

Glossop believes that this is happening out of necessity as the music business is evolving all the time and that "it's just one of those things." He also believes that if capital is available for a producer to use to develop an artist, then it makes a lot of sense. Another bonus, in Glossop's opinion, is that producers know exactly what A&R is: "It's to do with contacts –

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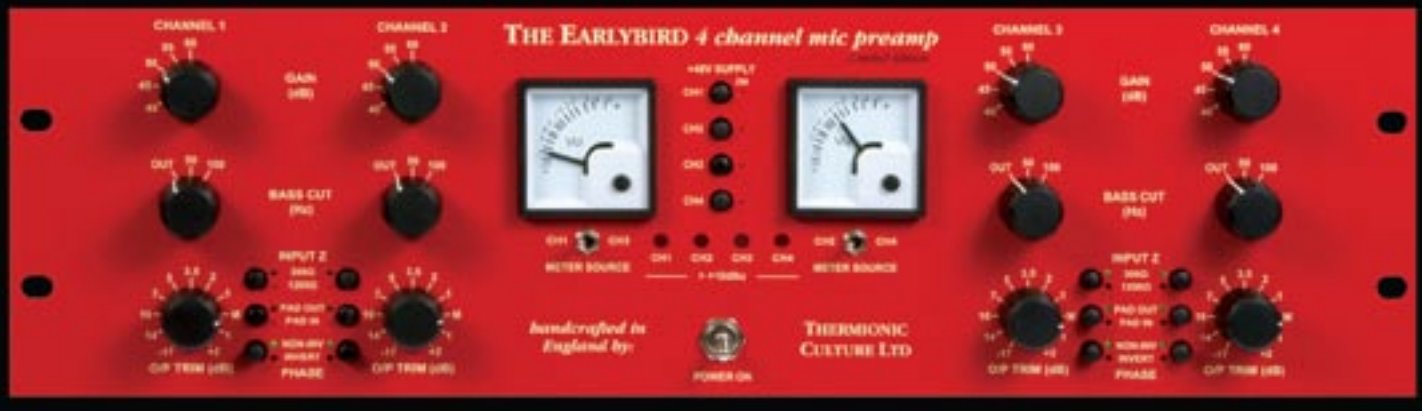

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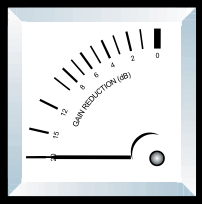

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and having some pull in the industry, so you can influence people to get involved," he suggests.

Scott Keniley, an entertainment lawyer based in Atlanta, GA, goes a step further than that; he says that because the majors have cut staff by up to 50% in the last two to three years, producers have now become the main A&R source to the majors. Wallace Collins backs up Keniley's theory to an extent when speaking specifically about record producers with a proven track record.

"The producer's argument is often that the artists can't get their demos recorded anywhere because they have no money or resources to do the job," he insists. "And it's the whole 'use me because I am connected' kind of thing; 'I've gotten a couple of artists deals' etcetera, etcetera; in these cases, 50-50 across the board is often a typical production deal."

Different World

MPG Director Tony Platt first made a name for himself as engineer at the now legendary Island Studios. He went on to work as a producer for Zomba in the 1980s, producing and engineering successful albums by the likes of Iron Maiden, Motorhead, The Cult, and Marillion; and has been at the heart of the industry ever since. Rather like his MPG colleague Mick Glossop suggests, Platt says this isn't a new and unique time in the industry.

"The business was much more like this at the beginning; we'd get people coming in and cutting a couple of sides – and that's how it developed," Platt explains. "Then it became more of a big business; and of course we know that model is now collapsing, so we're sort of returning to the way it was before."

"The producer's argument is often that the artists can't get their demos recorded anywhere because they have no money or resources to do the job..."

When questioned about the modern-day producer's role, Platt says he is still astonished at how slow "supposedly go-getting people" are in picking up the fact that record companies aren't developing artists anymore; and that the money simply isn't out there. He suggests [with a smile] that it seems like a lot of "those slightly older guys" have picked up and embraced the idea much more quickly.

A rather obvious question is perhaps whether or not the changing role of a producer is a good or a bad thing for the industry. Logic might say that a producer wants to spend all of his or her time in the recording studio – that's why he or she got involved in the industry in the first place isn't it? So isn't it a hindrance to have to do the job of the label from time to time? Platt suggests that you can look at it in two ways.

"There are actually two very clear advantages. Firstly, the artist has control of their career back; and secondly, as the producer I now have the relationship with the artist that I want to have – a creative technical relationship rather than sometimes being piggy-in-the-middle between a recording company, an artist, and a manager," exudes Platt. "However, it throws up all sorts of problems. I don't like the idea of being a manager, because that gets in the way. But so many of the artists coming to me don't have management or agents or the infrastructure required at all, and as a result I now go through the long process at the beginning with the artist asking, 'What is the point of making a record if you don't have any way of promoting it or an audience to sell it to?' They're often pulling the cart before the horse; I tell them that unless you're gigging and have the audience, there is no incentive for people to make an album."

Platt confirms that there are a number of producers, managers, and to a certain extent, publishers, that are now investing their time in working and developing talent to bring it to the surface. He also works with what he calls "a go-getting exciting young indie company" called Underdogs: "Underdogs is essentially a management and PR company, but it changes itself as and when the artist requires," he explains. "So, in some cases it'll be a PR company; and in some it'll do a bit of managing; and in some it'll simply look out for the networking structure of the artist."

Platt, like Glossop, doesn't have the time to go out sourcing talent. His philosophy is, "If someone is going to beat at my door in the first place then they have a certain amount of initiative about them." But one big problem that Platt believes is prevalent at both ends of the equation – to the consumer and to the producer – is that the whole market is completely and utterly overloaded. "The world and his wife wants to be a rock star," he quips, with a sense of futility, "and it's possible to make some kind of release quite easily. MySpace is full; YouTube is full; all networking sites are full; and 90 per cent of it is only there because there is a coterie of mates and family who like it. It's difficult to sift things out."

When talking about 360 deals, Platt says there is no standard agreement; every single artist's agreement has to be different. He also believes there is an alternative solution that could be a whole lot simpler and beneficial for everybody

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involved. "One clarion call I would love to get out there is that we need to have young entrepreneurial managers. I go to colleges and speak to students and they all want to be producers or marketing people," Platt explains. "But actually I think, 'Wouldn't it be great if some of you wanted to be managers?' It'd be so worthwhile, because the frequently asked question I get as an MPG director from producers is, 'Where can I find a decent manager?'"

Platt believes this feeds into the 360 deal. He believes firmly that a team of experts from each section needs to be put together, because if you're trying to be 'the whole package' you will run up against the buffers very quickly. "I would like to encourage artists to set up as an artist PLC as it were, and everyone who contributes to what they need to do can take a share of all that comes in, so you start to work on that rather than this cliché 360 deal," he says. "What on earth is a 360 deal anyway? It's a meaningless thing at the end of the day; What you are really talking about is the net worth of the artist and what we should be doing is taking a share of that net worth based upon the percentage contribution of what each party is putting in instead of a share of the specifics they take."

> "...the record companies have 'missed a trick' and blame their old methods of working for the state of the industry today: Record companies missed the digital age. We all thought we were going to keep record labels."

What Might Have Been

Wallace Collins says the record companies have "missed a trick" and blames their old methods of working for the state of the industry today: "Record companies missed the digital age. We all thought we were going to keep record labels. In the '60s and '70s, when most artists used to be rock 'n' roll or pop, it was all self-contained; they had their own writers – or the producer and the writers got together, and did it all themselves," he explains. "What the label should have said was, 'We're not going to let you make a deal with a competitive publisher; we're going to keep the records and the publishing here because we made it with you. We promoted it, marketed it, got it on the air and everyone's making money from my record'.. But they didn't."

Collins believes, with hindsight, that the labels should have swooped in during the 1980s with the upsurge of mega-artists such as Madonna to put their foot down and change the way the business model worked. "The reason the artists were becoming so successful was all about the record company. They were doing independent promotion, making videos, generating sales; and of course making the records," he explains. "The artists were making all this money and the labels hadn't yet recouped from the publishing, so the record companies should have said, 'Look, we're giant corporations – there are four income streams; why are we spending all this money on just one? Let's take them all!' That would have been a smart business decision."

The common theme here seems to be that producers are investing more and more time and energy into developing artists, often thinking of the bigger picture. Because the labels are dying – and of course many have already gone bust – the remaining labels' turning to producers as a kind of 'A&R little-league' resource is pretty understandable considering the labels no longer have the money or resources to bring in fresh talent themselves. Also, producers know the industry inside-out; they certainly know how to make records; they know how to structure songs – so in many ways it can be looked at as a no-brainer. Out of necessity, it seems, producers have now taken the helm and more and more seem to be managing artists, creating mini labels, and featuring enormously in recording contracts.

What About The Future?

A series of MPG events are planned in the coming months promoting a DIY approach to the music business. The final word goes to MPG's Tony Platt: "We want to encourage people to think differently about how we go about this. There are far too many people who have been moaning about the demise of the old model and far too few people looking for new ways to move things forwards," he says. "Our board of directors are working in conjunction with companies such as AIM and EMU to provide a series of seminars on business advice, copyright advice and the need to evolve relationships with the collection societies. The way things are going, artists and producers are going to need to collect from these societies based upon retailing models, because as we well know, it isn't all about CDs anymore." AM

INFORMATION

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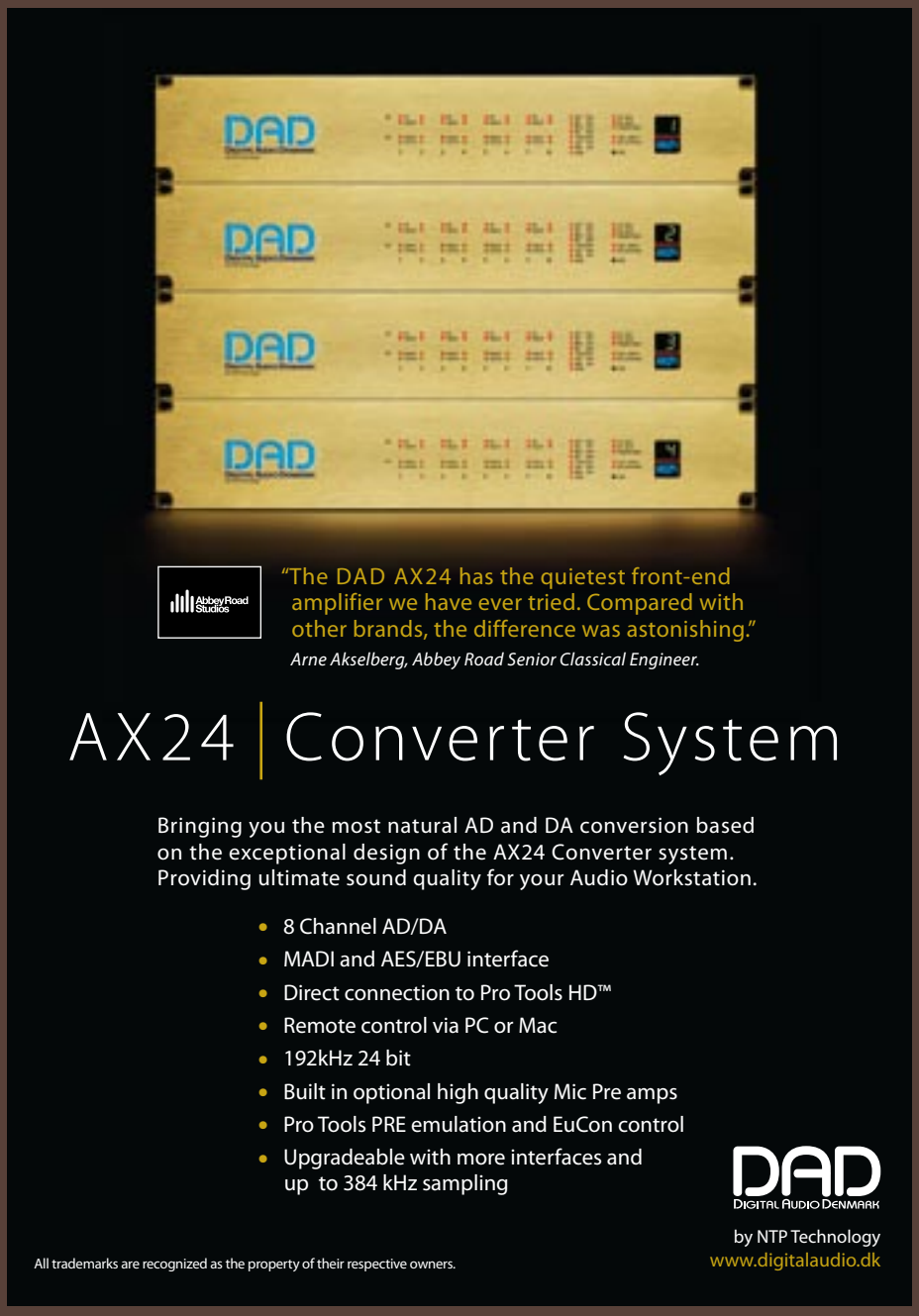
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Avid
HD OMNI & HEAT

SIMON TILLBROOK feels the heat as three new interfaces are launched into the DAW market... and singles out one for testing.

THE REVIEWER

SIMON TILLBROOK is the Principal Music Tutor at Islington Music Workshop in London. The rest of his time is spent as a freelance engineer, mainly in the USA.

IT HAS BEEN SOME TIME since we have seen any major hardware upgrades and options for use with Pro Tools systems, but we are now being introduced to three new interfaces – the Avid HD OMNI, HD MADI, HD I/O, and a software add-on called HEAT for Pro Tools HD systems, which accompanies the latest version, Pro Tools HD 8.1.

The Digidesign name has now gone, so these are the first new units to sport the Avid brand name, bringing Pro Tools systems in line with the rest of the company's product lines. Along with the re-branding, the range now comes in the familiar Avid colour scheme of purple and black.

For review, we have one of the new interfaces – the Avid HD OMNI and the software add-on, HEAT, along with the upgraded Pro Tools HD 8.1 software. The HD I/O and HD MADI didn't quite make it over in time for this review, but as soon as we get them, you'll know about it.

One For All

The Avid HD OMNI is a compact, all-in-one-style interface for use with Pro Tools HD systems, contained in single-unit rackmount box. The front panel and system approach has a certain familiarity about it, which might complement other interfaces on the market, as it's certainly a departure for Avid and its Pro Tools HD hardware.

There are four analogue inputs available on the OMNI. Next to the power switch are two combination XLR/TRS jack sockets for input to channels 1 and 2. Microphone input XLR and Line input TRS connectors are mirrored on the rear panel, but the front connectors have priority over them and instruments must be connected through the front. Both pre-amps have insert points via send and return TRS jacks on the rear of the unit

These inputs give access to the only two channels fitted with microphone and instrument pre-amplifiers. These can be controlled independently, or linked for stereo use with a single button. Analogue inputs 3 and 4 are line input only, and accessed through two additional TRS sockets on the rear.

There are eight analogue outputs on the OMNI, via 25-Pin D-Sub connection. Outs 1 and 2, or 7 and 8, can be mirrored from two additional TRS sockets and can be configured and calibrated in Pro Tools to either +10dBu, for monitor speakers, or +24dBu line level.

In the digital world there are eight AES/EBU outputs via another 25-Pin D-Sub, and a single stereo AES/EBU XLR input and S/PDIF I/O. There are also four TOSLINK optical connectors, which can be ADAT, S/MUX 2 (eight channels, 88.2 and 96kHz), S/MUX 4 (four channels, 176.4 and 193kHz), plus Digilink Mini and expansion ports, and word clock and loop sync I/O for connection into your Pro Tools rig and other system hardware.

Pre For Two

On the front panel, to the right of the combo inputs are the parameter controls for the pre-amps and the status, metering, and monitoring sections.

In amongst the pre-amp section, we have a pre-amp display and rotary pre-amp encoder (gain). The display indicates linking status, channel selection, and the pre-amp gain, as varied by the encoder between +10 to +65 in 1dB increments.

Other controls include source selection with LED indication, a -20dB pad, a phantom power button, a high-pass filter (85Hz at 12dB/Octave), a phase invert option, and a button to bring in or bypass the insert point. All of these pre-amp functions are independently selectable for Channels 1 and 2, or linked if that option is selected.

The signal flow for Channels 1 and 2 goes input, pad, pre-amp, HPF, insert point, limiter, ADC, phase invert. The 'curv soft-knee limiter' sits across all of the analogue inputs and is there to stop digital overload during recording. This limiter feature is a new addition to HD interfaces.

The basics of the hardware set-up are conveyed through LEDs indicators on the front panel. Sync mode and clock source are shown, as well as sample rate (44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz and 192kHz).

There are eight five-segment level meters that can display either input or output level, depending on the position of an associated selection button. These meters are calibrated and labelled at -42dB, -18dB, -12dB, -6dB and 0dB.

Within Pro Tools, you can configure outputs for use as your session dictates, but on the last section of the front panel we find dedicated controls for your monitoring options. there are source select and volume for two sets of control room monitors, referred to as Main and ALT. There is a separate selection button labelled Cue that selects a dedicated headphone mix, delivered through the front headphone TRS socket.

The monitor encoder handles the volume for all of these selection options, and a monitor display confirms the selected output monitoring option to which the volume is being applied. You can cut the monitor feed at any time with the mute button.

There is one further function accessible through the front panel, and that is set-up mode. While you can control set-up and configuration of the HD OMNI through Pro Tools as normal, set-up mode allows you to access and manipulate many of those parameters directly through the front panel.

Analogue output levels and trim, TRS mirror settings, analogue line reference level, digital resolution options, sync source, fold down for surround monitoring options, firmware and factory settings, and cooling ▸

fan control can all be managed from the front panel – something that becomes especially useful when you come to using the HD OMNI as a stand-alone device.

Control and set-up of the OMNI from within Pro Tools is done in the hardware set-up window. Indeed, Pro Tools 8.1 includes all configuration options for the whole range of new HD interfaces.

The Analogue In tab, for example, sets reference levels for the inputs, as well as configurable options for the new limiter (including bypass). The Mixer tab for the OMNI is particularly interesting as it lets you set and control balance and panning of your input signals to the current configured monitor signal paths. These setttings are saved within the unit automatically, allowing you to use the monitor routing configuration even when Pro Tools isn't around – in a stand-alone state.

OMNI-Present

The addition of the HD OMNI to the Pro Tools rig made complete sense right from the start. The main Pro Tools rig I have been using is attached to a separate monitor speaker controller and what I refer to as a working pair of pre-amps going into a Digidesign 192.

The addition of the HD OMNI negated the need for the additional monitor controller, which has stereo and multi-channel capabilities, and the workhorse pres. Not only did this simplify the general set-up, but made the whole rig that much more portable between set-ups.

The set-up and configuration for the HD OMNI through Pro Tools 8.1 was as straightforward as you would think. You simply spin through the various tabs in hardware set-up to establish your signal flow for your session and assign I/O as normal. I configured for a full 5.1 and stereo monitor system set-up with a fold-down for surround and worked through a few different sessions, switching between monitor systems.

One feature I do like is the ability to simply monitor external sources without the need to go through Pro Tools, even without the application running stand-alone as the last hardware set-up I configured was saved within the HD OMNI.

The quality of the two pre-amp/DI inputs is clean and transparent – very useable although maybe not spectacular... Good quality pre-amps that I found very useful and with a good gain range that was smooth across the full rotary travel.

The ability to both link and independently configure from the front panel was very welcome and the display, even though small, gave enough feedback for most basic requirements.

This clear visual aspect of the unit is continued with the array of LED indicators and level meters for each of the eight inputs and outputs. The metering is certainly a little more useful than just an indication of signal presence.

The converters are very transparent and gave a good natural representation of all the sounds I tried them with. I have been told that this is reflected throughout the new range of HD interfaces and would like to hear how the new HD I/O converters stand up against the old 192. If the converters in the HD OMNI are an indication of this, then this really is a step up!

Having a flexible and comprehensive monitor speaker controller is a great addition, especially as it also has the headphone monitoring with its own configurable output.

HEAT

HEAT stands for Harmonically Enhanced Algorithm Technology and is Avid's new add-on for Pro Tools HD only that is bundled with all new Pro Tools HD packages and available as a single purchase addition for the current user base.

Developed with Dave Hill of Cranesong, this is not a plug-in but an algorithm that is applied across your whole mixer interface, and the idea behind it is to emulate analogue distortion as though through a traditional analogue mixing console.

I have recently been using Harrison's Mixbus software, and what makes that DAW mix interface stand out is the emulation of analogue console distortion built directly into the interface. I wondered why I had not seen this elsewhere, and it seems that others have been thinking about it too.

HEAT works with audio tracks only, so any additional strips in your session (this includes aux strips) are not processed. The HEAT master view can be activated on each audio channel strip, where you can individually bypass the processing or have HEAT process your audio before the inserts to isolate from later processing. This is the default setting when HEAT is active across your mixer interface.

One important thing to note here is that in this default configuration with an RTAS plug-in inserted after HEAT is applied, you need additional voices to isolate that additional process signal, and so voice allocation will potentially increase quite a bit.

HEAT is also quite DSP hungry so, once again, this will need to be considered as part of your system resource management.

Turn It Up

The master controls for HEAT are extremely simple. You have a master bypass button and two rotary controls labelled Drive and Tone. Drive sits in a central position and, by rotating clockwise, introduces even order harmonics akin to triode tube circuits, emulating that tube-like distortion that so many love. Anti-clockwise rotation provides odd harmonics to emulate tape-based, non-linear distortion. As level increases, harmonic addition increases with additional high-frequency odd harmonics. The audible results are obviously content-dependent and vary with the overall amplitude of your signals.

Tone works in conjunction with the Drive control to further simulate tape compression as levels increase. The high-frequency content compresses faster than the lower frequencies and without compensation, which is an integrated part of tape machine design, would dull the sonic attributes of your sound. From its central position, you can increase and decrease the amount of high-frequency brightness and clarity in proportion to the amount of Drive used. These HEAT master settings are going to be something that you will need to spend time with in order to really reap the benefits.

Feel The Burn

I used HEAT on a number of mix sessions encompassing as wide a variety of style as possible to get a good sense of the HEATs process. I spent a considerable amount of time getting to grips with the Drive and Tone controls, and time is something you will need, as the range of possibilities is extensive.

I loved the additional sonic characteristics that HEAT allowed me to introduce into the mix. The ability to bypass individual signals and A/B the results was very pleasing. The analogue console emulation here, compared to others I have either used or heard, is very good – but the way I can include and remove HEAT from the signals gives a much greater range of possible uses in comparison to these other options.

This approach is quite different to tape saturation plug-ins. HEAT, as with the other options, looks to work with the collective rather than the individual signal and is all the better for it. This is quite a processor and voice-intensive as the manual describes, so a powerful system is a must.

Conclusion

The Avid HD OMNI is a fabulous addition to any Pro Tools HD rig providing many of the features that we usually have to acquire from third-party devices. The quality of all the sections stands up, as you need in a high-level system, all in a compact single-unit rack box. For many, it might be the only hardware unit in their rig and, in such applications, will not disappoint.

HEAT is equally welcome. Having such an emulation tool to use with your mixes opens up more opportunity to keep your sessions completely within the box. It's the inclusive flexibility that is particularly good and makes HEAT stand out from other such emulations.

If HD OMNI and HEAT are truly representative of the new units introduced by Avid for use with Pro Tools HD systems, then they are a significant step up in overall sonic delivery and flexibility.

INFORMATION

£ Avid HD OMNI GB£2150.00 (exc. VAT)
£ HEAT GB£355.00 (exc. VAT)

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Adventures in Space

RecPublica Studios, Poland

STEPHEN BENNETT caught up with location sound recordist Ray Beckett about his extensive experience with director Ken Loach and some more recent explosive recordings under the direction of Ralph Fiennes.

RECPUBLICA STARTED AS AN IDEA, six years ago, after a band had a bad experience with studio time in Warsaw. It seems that a part-functioning console, terrible service, non-existent (but advertised) 'luxury' facilities, an incident with woofers being replaced mid-mix while the band was at lunch, and even a three-hour round trip to the hotel just to get a shower, was what Poland had to offer back then.

What, they decided, was required, was a Polish residential studio where, according the Studio Manager Patryk Zukowski: "You record; but if you want a nap you just go; you can take a shower, whatever. You just feel like everything is around you. The equipment has to be great, and in good condition – and you want very good technical support. That's why we built the studio."

From there started a labour of love for Zukowski and Studio Owner Bartek Nowacki that took about five years – from finding the 700 year old mill building, situated only one and a half hours' drive from both Berlin and Warsaw, to creating a John Flynn-designed facility with four live rooms (including a main live area of over 900 cubic meters with its own Fazioli F 228 piano), an SSL/ADAM/Pro Tools equipped control room, four-star accommodation for up to 12 people, and lounge, bar, and kitchen facilities.

Oddly though, the studio's foundations were (metaphorically) laid in London...

PZ: We found the great guys from KMR who helped us a lot. I met them when I was looking for some microphones and I just called them and said, 'hey guys I want to equip a studio'.

PM: Equipment-wise, did you specify all of it?

PZ: Yes, it was mostly down to me. After a while of working in different studios I have found that there are certain pieces of gear I like, so most of the things I have chosen for RecPublica come from my own experience.

The desk [SSL 48-channel Duality] was the first choice from a few others, including the AMS Neve Genesys, and API.

PM: Was the ADAM monitoring first choice – how much auditioning did you do?

PZ: We'd been thinking about different brands. I've worked on other monitors – sometimes I liked them, sometimes not. But I was looking for something different.

I'd been to a Berlin music store, doing some shopping. In the shop was a pair of 5As, and I remember it was a really horrible room – no treatment at all. I found a CD, a very spacey song you know, it was the only thing that was there and I just played it back, and was like, 'Oh my god'. I suddenly didn't know that song. It was totally different from the way that I knew it; and I started to try different songs, different music, and was astonished that in this really bad place it sounds like this. The stereo image was there, the detail... everything was there.

I came back here and said 'I've found the monitors, let's go for the ADAMs'. We ordered the S6As without hearing them. And yes, I was very satisfied.

PM: That's a big leap of faith.

PZ: Yes, but we couldn't find a place check them at that time, and the decision had to be very fast due to financing. I'm glad it worked like that. I really like the way ADAM does speakers, the technology is cool...

Build It Up

PM: Did you take care of the building and project management yourself, with John's plans?

PZ: Yes. We had our own crew for building this. When they were done they said 'okay I'm done with it, I want to do bedrooms, bathrooms...' We were on-site around all the time – we left for only two days during that time, and we were standing over them saying 'guys, don't do it like that... leave that gap there, and all that."

PM: There are some things builders wouldn't naturally do, especially when they don't have experience of studio construction, so you have to keep an eye on them.

PZ: If there's a gap, put concrete in it! It was really a struggle to get quality from the builders.

I remember the guys who were doing the flooring... we were saying 'be careful about the gaps, don't make any contact from the floor to the wall because it's a floating floor, don't do anything to fix it.' And they were like 'okay guys, easy, we've been doing cinemas and stuff, so we know our job.'

That was the time we left for two days, and we had to do the flooring again. It cost us three weeks off because they ▸

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put glue in, which they were saying was 'very elastic'. It was – when you hit it with a hammer.

And we had a funny incident with the silicon sealant. We were saying 'bring a lot of silicon with you'. They brought two tubes, and were asking why we were laughing so much. After two minutes they were going to the shop and bringing back boxes of silicon. They just didn't realise how much work it was going to be. Especially with things like the soffit mounting, it's a lot of work. It's really heavy."

"There is a room we started building at the beginning, but there was a problem with building permissions. They allowed us to do it, and then they just decided to stop it. That's why it's not done, and there's no time to finish it because we're working all the time. The idea was to build a stone room, but the stones are taking up a parking space around the back at the moment."

Market Forces

PM: You don't currently have the control room set up for surround at all. Did you decide that early on?

PZ: We were thinking about it, so John has prepared the room for 5.1 monitoring. But most of what we do is music – stereo music. We haven't been doing any kind of post production or scoring here, because we don't have those customers yet. Maybe one day we'll do it.

PM: Maybe the easiest jump is into surround mixes for live music DVDs?

PZ: Yes, that's what we are thinking about right now. The idea was to make the place mostly for tracking and recording the music, so mixing was somehow in second place – more just as a result of the first. When you record, you need to mix it.

There are a lot of musicians who are coming in, tracking, then going. They don't come back for mixing – they come back for recording, for tracking again, maybe because they want to do some overdubs.

Now though we have many more mixing jobs than before and we have customers who are coming in only for mixing – no tracking. Maybe the next step is going to be 5.1.

We are also considering constructing a second control room. I don't know where it's going to be yet because we don't want the studio to become crowded. We want clients to know they are special. Some of them like that of course. It's great for the band to live together for a while. We have rooms for 10-12 people right now and we're thinking about adding more rooms for more. Sometimes bands come in in really huge numbers.

PM: Who is using the studio at the moment – where are they coming from?

PZ: Mostly Polish at the moment. Right now, we have a guy in from Italy, we've had others from Germany and France, and we had one from the US. But we are looking mostly for the German

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customers I think, because it's really not that far away. We have already booked some rock stuff in. When we started the business we concentrated on getting Polish bands here. Right now, that's working so we are thinking about expanding into the West. That is why we went to Infocom – to meet people and show them the studio. Some don't believe such a studio exists – we have had people drive in here just to take a look.

PM: It's lovely – really, really nice. I expect you're very proud?

PZ: Yes, it's our baby. Really it is.

INFORMATION

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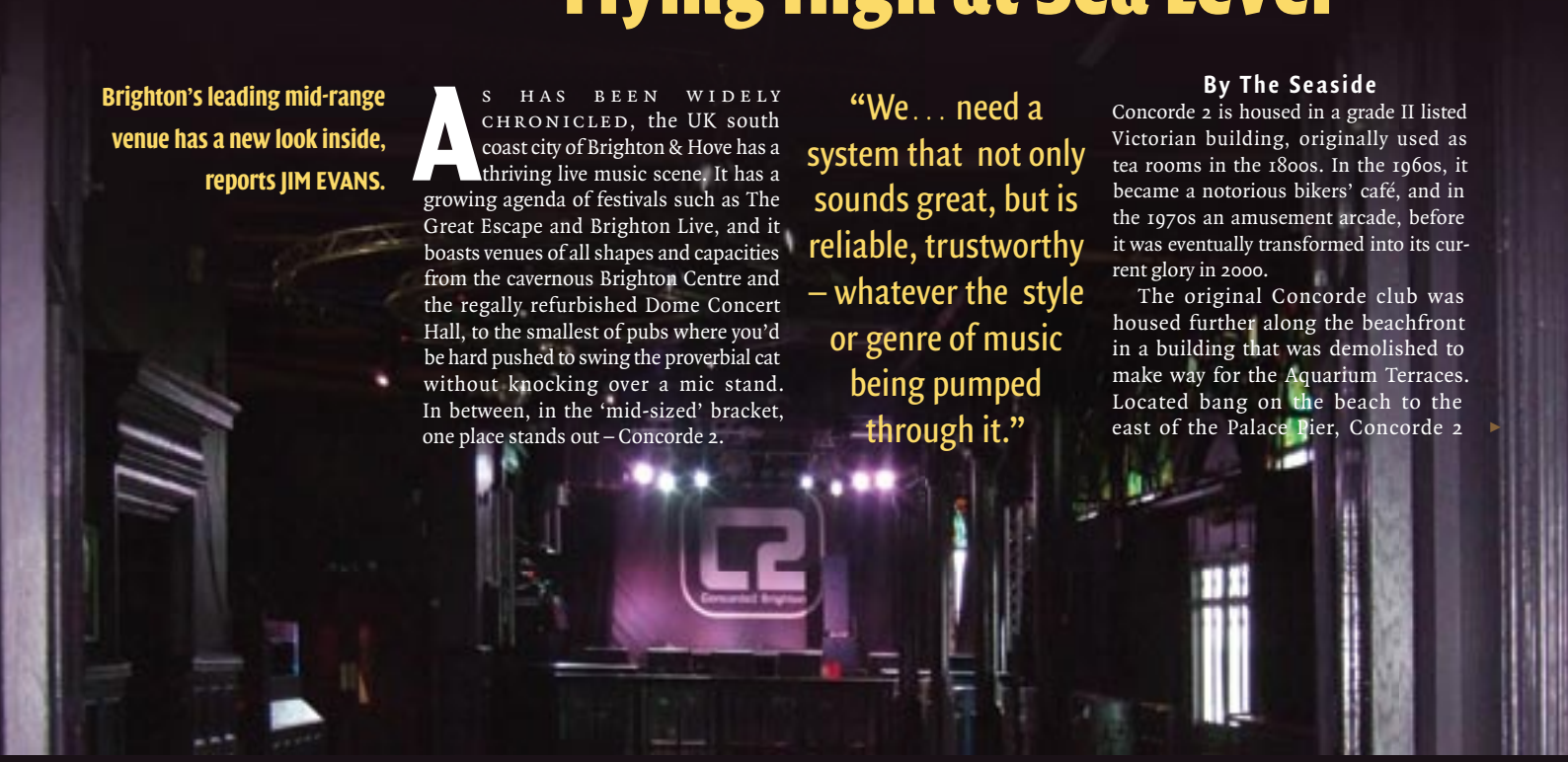
Concorde 2
Flying High at Sea Level

Brighton's leading mid-range venue has a new look inside, reports JIM EVANS.



AS HAS BEEN WIDELY CHRONICLED, the UK south coast city of Brighton & Hove has a thriving live music scene. It has a growing agenda of festivals such as The Great Escape and Brighton Live, and it boasts venues of all shapes and capacities from the cavernous Brighton Centre and the regally refurbished Dome Concert Hall, to the smallest of pubs where you'd be hard pushed to swing the proverbial cat without knocking over a mic stand. In between, in the 'mid-sized' bracket, one place stands out – Concorde 2.

> "We... need a system that not only sounds great, but is reliable, trustworthy – whatever the style or genre of music being pumped through it."

By The Seaside

Concorde 2 is housed in a grade II listed Victorian building, originally used as tea rooms in the 1800s. In the 1960s, it became a notorious bikers' café, and in the 1970s an amusement arcade, before it was eventually transformed into its current glory in 2000.

The original Concorde club was housed further along the beachfront in a building that was demolished to make way for the Aquarium Terraces. Located bang on the beach to the east of the Palace Pier, Concorde 2 ▸

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has recently completed an internal refurbishment programme that has resulted in more space in the main auditorium and improved sight lines throughout the 600-capacity venue, which also happens to feature one of the longest bars in Brighton. And on the technology front, there are plans afoot to move further into the digital domain.

Concorde's roll of honour ranges from Bloc Partys secret gigs, to The White Stripes' first ever UK appearance, Jarvis Cocker making his solo comeback, and Kaiser Chiefs' early gigs. The Scissor Sisters also played here several times before moving up the ladder. Concorde 2 is also a breeding ground for new talent, with many of the hottest local acts making their name here, such as the Kooks, the Ordinary Boys, and the Maccabees.

It is also established as a major player on the club night circuit with star turns including Mark Ronson and Soulwax, and Brighton's very own Norman Cook and his Big Beach Boutiques. Concorde 2 has also served as GHQ for his last two Fatboy Slim outdoor extravaganzas.

Ten Year Faith

The technical team puts its faith in an L-Acoustics ARCS/B218 based in house system – and has done so for the last ten years.

"The system continues to sound amazing, and we've certainly no reason to change it," says Technical Manager and Engineer Matt Oliver. "We love it and so do all the bands that use it. We are live 12 hours a day, seven days a week, and need a system that not only sounds great, but is reliable, trustworthy – whatever the style or genre of music being pumped through it. We also have a permanently installed Digidesign Profile desk that we're equally happy with – though it might change roles soon."

"Virtually all the bands use the house system," says Oliver. "It's very rare that an act will insist on using its own set-up. And with a system as good as ours, it wouldn't make sense. On some occasions – maybe club nights for example – some acts might add some bigger boxes, but most have learned that bigger is not necessarily better.

"We have a Midas Siena on stage doing the monitoring, and the lighting desk is an Avolites Pearl Tiger. The system hasn't been changed as such, though we are always updating and tweaking."

Oliver continues, "Over the years I've worked with many different systems, but the L-Acoustics remains my favourite. It's very much a personal thing, but it works so well in this room and it's easy to maintain."

Oliver has been associated with Concorde 2 for around five years, starting off doing club nights and then moving towards monitors and mixing. "I now cover everything," he says. "We have a crew of four or five engineers and LDs – there's a plentiful supply in Brighton – and we all swap and change roles as necessary."

New And Improved

Two new lighting rigs have been installed recently, while in the main room there's a new bar area, and the FOH position has been raised and provides improved access and more space – useful for when bands bring their own desks.

"It's not the easiest room to engineer, but once the room fills up, the bottom end tightens up," adds Oliver. "We've got some new drapes coming along, which will help. What with the glass and the cast iron, the building can be quite rattly at the low end, but generally it's a good room to work in. We don't get too many complaints from visiting engineers."

As to future plans, Oliver reports that there will be changes within the next few months. "We had a Soundcraft Vi6 down here on trial from Harman for a week, and while there has been a lot of hype surrounding it, it did sound brilliant. We are looking to get a new digital desk for front of house and moving the Profile on stage. Whether you like it or not, digital is here and is taking over. Being digital on stage and at front of house will make everything much easier – and the sound will be top notch."

INFORMATION

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Life's Twists n' Turns

STEPHEN BENNETT caught up with location sound recordist Ray Beckett about his extensive experience with director Ken Loach and some more recent explosive recordings under the direction of Ralph Fiennes.

THE TWISTS AND TURNS THAT A LIFE TAKES ARE LEGION, but Oscar-winning location sound recordist Ray Beckett could hardly have imagined as he was setting up his boom, microphone and tape recorder to capture actor Ricky Tomlinson's hilarious, yet tragic, attempts to steal a sheep from a damp northern field in Ken Loach's 1993 film, *Raining Stones* that, 15 years later, he'd be receiving the highest plaudits of his profession for his work on a war film shot in the searing heat of the deserts of Jordan. Working on a high-budget action film under the direction of Kathryn Bigelow isn't as far a jump in style as you may think though; Loach's insistence in his movies on improvisation and naturalism in both the dialogue and images ensures that when a big Hollywood name is trying to inject a note of realism and emotion into their film, it's his sound guy they're likely to call.

War... What It Is Good For

"I got the call to work on *The Hurt Locker* from my association with both Barry [Ackroyd, the cameraman] and with Ken Loach," says Beckett during a break from collecting location recordings for his personal sound library. "Kathryn Bigelow looked through Barry's portfolio of past work and she particularly liked the sound of the battle scenes in *The Wind That Shakes The Barley* (Ken Loach's film set in the Irish war of independence in the 1920s). So she was up for having me along as well on the film. As I've worked with Ken over the years, I've refined my techniques to fit in with his particular vision but, unknowingly, I was also preparing myself for Kathryn's style of shooting! Totally different filmmaker and a different way of working, but technically very similar." Beckett has just completed another war epic – the modern updating of *Coriolanus* notable for being the directorial debut of actor Ralph Fiennes. "We shot the film in Belgrade. It was his first directing gig and he'd taken on the dual task of being the lead actor and fronting the film and he asked me to come in and work on the sound – probably because I'd worked with him on *The Hurt Locker*."

Beckett was on the way home from Los Angeles after picking up his gong (he also scored a BAFTA and a C.A.S along with the aforementioned Academy award) when he was to make a trip that may prove extremely important in the way he approaches his recordings in the future. "I was almost immediately on a plane out to Belgrade," says Beckett. "Fortunately, between me getting back and flying out, I fought through the jet lag and diverted the taxi to DPA Microphone's agent in Great Titchfield Street to pick out a 5100 (the company's 5.1 surround sound microphone). I'd heard good things about it and I really wanted to give it a proper test. So they kindly loaned me a production prototype and that's the one I took out to Belgrade." The DPA 5100 proved extremely useful to Beckett on the shoot and threatens to usurp, or at least augment, his usual microphonic choices.

What An Atmosphere

"On *Coriolanus*, I had an eight-input, 12-track Sound Devices recorder (788T) and, whenever it was possible, I'd have two tracks available for dialogues if it was a simple scene. However, if we were in an acoustic that justified a bit of enhancement, I'd plug in all six channels of the mic (on a 30-metre cable) so that I could position it to pick up the ambience of the particular scene. I'd usually use it on exteriors, but it wasn't picking up any of the direct dialogue – so the sound editors had that ambience available. I did use it in its full 5.1 on the first day when we did some warm-up scenes. There's a sequence in the film where Ralph has been banished from Rome and it's about his journey through the hinterland of the city and in to enemy territory. So it was an excellent chance to get some outside sounds to extenuate this lost, lonely feeling that the character is going through at that point. I just had a radio mic on him to capture breathing sounds and the DPA plugged into six channels on the recorder. Previous to using the DPA, I'd been using a similar method using Schoeps mics as M&S rig, which did the same thing really – I used that on *The Hurt Locker* and several of Ken Loach's films as well. I'd use this on a long cable picking up what I call 'simultaneous atmos' tracks that are as clean as possible without production dialogue on them. I brought that rig along to Belgrade, but I plugged in

the DPA, powered it up and it worked first time! I found it worked best if it was up really high – 10 or 15 feet above the ground – on a big music stand. It was also fine low down, but I preferred the slightly rounder sound it produced high up. We also used it extensively on big interiors. We had access to the Serbian parliament building – it's a large circular room – and we had all the extras in there, a cast of thousands. I managed to get myself up to the balcony around the room, partly to get over the actors but also to get out of Barry's shots! I had my radio and boom mics deployed and the DPA out on a pole on a right-angled bracket so I could angle it any way I wanted to. The idea was that the front channels would be picking up the applause, but the rear channels would be picking up the reverb from the domed roof – the sound designers were very pleased I'd recorded a live 5.1 rather than them having to recreate it from a stereo channel."

Beckett is enthusiastic about the DPA, to the point that he eventually bought a production version of the mic. "The nice thing about the 5100 is that you can pare it down, depending on the scene. For example, there's not much use in using the sub channel if it's just dialogues. Occasionally, I'd record all six channels fully expecting not to use the sub. However, there were some scenes where the Roman army is laying siege to this town and there's a complete battalion with lots of gunshots (Fiennes has updated the *Coriolanus* story to modern times) and it came in really handy there because the sub channel allowed me to raise the bottom end of those gunshots for the sound designer – I actually pushed up the level of the sub just to say: 'It's here!' There's one bit where Gerard Butler comes crashing into shot and lets rip with an AK47 and I had the mic about three metres away. First take the front/centre of the DPA clipped, which is what I'd expect as it was coming at it at about 130dB SPL. But moving back another couple of metres made all the takes clean. It's very small, light and easy to move around and hide compared with using omnis on a large spider frame – which would have been impossible to use anyway on this film. Sometimes I'd just use the front and centre to substitute for a stereo and was pleasantly surprised at the accuracy of the stereo localisation. I've since bought one of the production units and have been using it here in Dorset to capture some nice surround recordings of the local environment for my library. Because all the elements are pressure operated, it's much less prone to handling noise."

Speak, Friend...

Because of Beckett's extensive experience in working with Ken Loach, you'd expect him to be passionate about capturing the emotions and naturalism of a scene on set or location as cleanly as possible without recourse to extensive ADR. "You have to overcome the prejudice that some filmmakers have against using live sound. They think it's going to be trouble, that it slows things down. But if the whole film is done with the philosophy that 'We're going to do this live,' it can actually speed things up. If you have proper location reccies and you solve problems before shooting, it's then down to you, your boom swinger, and your team's skill to capture the sound you have available around you. You nearly always have to have some ADR, because of technical issues or in instances where the actor or director is unhappy with a performance, but generally my experience is that actors hate ADR – coming back six months later completely cold. On my trip to The States I had a brief word with Quentin Tarantino and his sound mixer. He always aims for 100 per cent live sound and no ADR because he wants that immediacy in the actor's performances and he's prepared to move heaven and earth to make that happen." Hopefully, Beckett didn't have to invoke any deities when recording *The Hurt Locker*; rather he just paid his customary attention to detail and carried out his extensive pre-production work. "One of the nice things about working on Kathryn's film was that I was in contact with the post-production crew about six months before the film shoot began. It's rare that you get this much time to prepare, but I feel this contact is extremely important if we all want to be singing from the same hymn sheet. We sort out technical details like frame rates, metadata and how they want the sound delivered and in what formats, so when we start shooting we can just go ahead. On *The Hurt Locker*, Paul Ottoson (the sound designer and fellow Oscar winner) and I were in touch for at least a month before we went out to Jordan. We knew that what we wanted to achieve In the movie dovetailed nicely."

More Than That

For Bigalow's film, Beckett (in pre DPA days) was using his trusty Schoeps microphones to capture dialogue. "I used a stereo pick-up with a Schoeps CMC5 pre-amp with a CK4 (cardioid) paired with a CMC5/MK8 for the figure-of-eight pattern and a Rycote rig. I was also using an Aaton Cantar recorder, which I was very pleased with, and only moved to the Sound Devices on *Coriolanus* because I needed more input channels. On my next film, I hope to use two Sound Devices recorders and dedicate one to the 5.1 output from the DPA, which should give the sound designers the most flexibility." Although technical advances have made it possible to cleanly capture many sources and the highest possible resolution, Beckett is at pains to point out that he's not been reduced to a person who just presses record when his boom operators have the microphones in place. "Mixing in live and plant mics along with dialogue is a skill I keep up and it's quite important because, while we can now record all these sources, it's essential that the sound mixer isn't relegated to just an acquirer of tracks post production, but that he's also part of the creative process. My mixes suggest the way I would do it and of course the picture editors are going to need a meaningful mix to cut picture too. I try and imagine that I haven't got these iso tracks at all, as if I'm back in the old days with a two-track Nagra or DAT. Should the iso tracks explode in a fire, the mix tracks might just get the post production people across a gap – although, of course I am aware that I actually do have the safety net of the individual tracks! AM

INFORMATION

Ray is a member of The Cinema Audio Society and the Association of Motion Picture Sound.

In The Rack

The studio rack is a very specialised place these days. It no longer stands for everything that isn't a console, microphone, or speaker, but hosts the boutique, the specialised, the power-hungry… and the analogue. We present a selection of the rack-mountable miscellany that thrives in discerning facilities everywhere...

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www.aphex.com

Benchmark's DAC1 HDR is an all in one reference quality stereo pre-amp with an intelligent remote control. The DAC1 HDR features Becnhmark's DAC1 digital-to-analogue audio converter, AdvancedUSB DAC, and the HPA2 headphone amplifier. The remote control solution of the DAC1 HDR is built around Benchmark's new high dynamic range volume control.

www.benchmarkmedia.com

The **Crane Song** Egret is a 2U rack, described as a 'highly versatile workstation back end'. The unit features eight channels of digital to analogue conversion and a stereo line mixer with a stereo auxiliary return. Balanced insert points enable external studio gear to be patched into the Egret's mixer for further processing, while a master reverb, for example, can be set up on the aux send.

www.cranesong.com

API's 527 Compressor/ Limiter is designed for individual channel use. For stereo applications, the LINK switch allows two units to be combined via a motherboard bus connection. Features include feed forward and feed back gain reduction, fully adjustable attack and release, and patented THRUST technology. The Thrust function gives the option of a high-pass filter before the RMS detector.

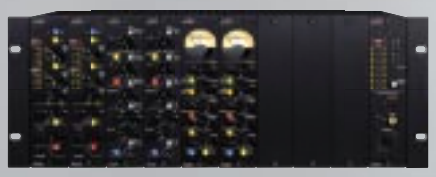
www.apiaudio.com

The **Bricasti Design** Model 7 is a stereo reverb processor that claims to provide the highest level of musicality and ease of control imaginable. The M7 boasts 100 unique reverb presets, 12 parametric program parameters, and four front-panel favourite buttons for quick saves and compares. The unit is hand crafted in the USA with a sleek milled anodized aluminium front panel.

www.bricasti.com

The BG501 is the 500-Series version of **DAV**'s popular Broadhurst Gardens BG1 mic pre-amp. The BG501 from DAV offers switched gain controls for high accuracy level setting, a front-panel mounted high impedance direct input, phase reversal, and switchable 48V phantom power supply.

www.davelectronics.com



Audient's rack-mounted Black Series is a modular rack system comprising a pre-amp, EQ, compressor, ADC and word clock generator. The Black Time Machine is the series' master word clock generator. It distributes word clock to each Black ADC in the Black Series Rack and provides external outputs via a BNC connector and two AES/EBU connectors.

www.audient.com

The Germanium Compressor is **Chandler Limited**'s latest addition to the Germanium series. It features a wet/dry mix, compression curve, clean/dirty compression, and side-chain filter. Many of the parameters have been purposely set by studio use and listening, rather than by analysing them with test gear. The intended result is a musical powerhouse for tracking, mixing, and mastering.

www.chandlerlimited.com

The **Drawmer** HQ Precision Pre-amp / DAC combines a state of the art DAC with superior analogue design and an intelligent control system. By disposing of relay attenuators with high accuracy resistors, it aims to avoid the distraction of chattering relays, whilst extending relay life. The unit handles four analogue and four digital sources, with individual gain settings.

www.drawmer.com

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The ISA428 MkII provides four of **Focusrite**'s prestigious transformer-based microphone pre-amps. It features the same circuitry and audio quality found in the original, at a new level of affordability. As a front end, the ISA428 MkII provides selectable input impedance, direct instrument inputs, and an optional eight channels of high-quality analogue to digital conversion.

www.focusrite.com

Klark Teknik's DN9652 Dual Network Bridge has been designed to allow two dissimilar digital audio networks to interface simply and reliably. The DN9652 supports network modules designed and manufactured by Lab X Technologies, Audinate, and Cirrus Logic.

www.klarkteknik.com

Prism Sound's MEA-2 is a four-band stereo precision analogue equalizer. It features stepped Q/shelf, frequency and cut/boost controls on each band. The individual EQ sections are completely switched off when the gain controls are set to 0dB, and the unit goes into full bypass when the power is switched off.

www.prismsound.com

Grace Design's m103 is a single-channel mic pre-amp, EQ and optical compressor that acts as a powerful tracking tool for recording scenarios. Features include Grace Design's m101 transformerless microphone pre-amp circuity, ribbon mic mode, a 75Hz HPF and 48V phantom. The compressor controls can be linked for stereo applications.

www.gracedesign.com

The PCM96 Surround is a parallel stereo and surround reverb/ effects processor. Building on **Lexicon**'s PCM96, The PCM96 Surround offers more presets, configuration options, inputs and outputs. It is availble with either six XLR Stereo AES inputs and outputs, or two DB25 six-channel analogue I/O and 1 DB25 six-channel digital I/O.

www.lexiconpro.com

Radial's Komit is a high-resolution 500-Series VCA compressor-limiter. It features a typical compression ratio control, enhanced with a 'smart' three-position feed-forward, auto-tracking mode that sets the response time to slow, medium, or fast. Particularly advantageous for those recording in 5.1 surround is the sync function that employs a time constant instead of voltage to synchronise the compression so that multiple units can be locked together for greater accuracy.

www.radialeng.com

Great River's 32EQ is a new 500-series version of the EQ and filters from the Harrison 32 Series consoles. An Internal jumper provides selection between the vintage feedback design and a non-feedback option. With direct support from the original designers at Harrison Consoles, the prized characteristics of the originals have been maintained in the new design.

www.greatriverelectronics.com

The Voice of God is a 500-Series compatible analogue bass resonance tool. **Little Labs** originally designed the VOG to capture the chest resonance of vocalists and voice-over artists. However, it is also recommended for use on kick drum and bass. In a mix, VOG can be used to place and define bass spectrum instruments.

www.littlelabs.com

Packed into only 2U height, **RME**'s M-32 AD offers a 32-channel AD-conversion to MADI and ADAT in reference quality. The fully symmetrical analogue circuit design guarantees excellent S/N and THD specs across a wide analogue level range. Nearly identical features are found in the M-32 DA, and both converters are available in 16-channel versions.

www.rme-audio.com

JDK Audio's R22 is a dual-channel compressor based on those used in ATI Paragon mixing consoles. A Thrust switch preserves sensitive high-frequency content under vigorous compression. The two channels can also be linked for use as a stereo compressor with true RMS power summing of the left and right signals.

www.jdkaudio.com

Pendulum Audio's OCL-500 is a 500-Series compressor/limiter. It uses the same compression circuit as the OCL-2, but uses a transformerless Class A solid-state gain makeup circuit in place of the tube stage. The result is clean, transparent compression that can be used to shape the dynamics of any source whilst preserving its tone.

www.pendulumaudio.com

Rupert Neve Design's Portico II Channel Strip is designed to enable engineers to shape or fine tune tracks to the limit of their imagination. The self-powered 2U channel module is comprised of a fully featured mic pre-amp, four-band EQ, compressor/limiter, texture control and level meter.

www.rupertneve.com

Samson Audio's S-com plus is a highly adaptable stereo compressor/limiter in an efficient single-rackspace design. Each channel features a wide range of variable control. A feature-rich compressor section includes variable threshold, ratio, attack and release controls.

www.samsontech.com

The Aurora 16HD and Aurora 8HD are **Lynx Studio Technology**'s 16- and 8-channel 24-bit /192kHz AD/DA converters in a single-space rack-mountable case. The Aurora 16-VTHD adds variable trim pots to all analogue input and output channels, for fine adjustment of maximum output levels between +8.5dBu to +24dBu. With the LT-HD LSlot card, Aurora converters are seamlessly incorporated into Pro Tools via HD Core or Accel Core cards using standard DigiLink cabling.

www.lynxstudio.com

The **Tonelux** Equalux is a discrete parametric equalizer. The front panel does not have a Q control. Instead, the filter Q is controlled in relation to the boost and cut control, and uses a curve that keeps the bandwidth wider at lower boost or cut levels and becomes narrow at higher boost or cut levels. With the peak button pressed, width is kept at a constant 1/3 octave for precision control.

www.tonelux.com

The **Shadow Hills** Dual Vandergraph is a 500-Series compatible stereo compressor with a fully discrete Class-A audio path, featuring Shadow Hills' custom Iron Transformers. Its circuitry is developed from the discrete gain cells of the mastering compressor, which are combined with a flexible side-chain filter matrix.

www.shadowhillsindustries.com

SPL's RackPack 500 is a modular system for API 500 compatible and SPL RackPack modules. It offers eight slots to host four SPL and four 500-Series compatible modules. SPL RackPack modules include the Transient Designer, Dyna-Maxx compressor, and DeEsser.

www.spl.info

The PT2-500 is a 500-Series mic pre-amp and instrument direct-in from **True Systems**. The new design brings high-headroom and low noise. It features a DI circuit to calm edgy piezos and DI THRU jack for amping or effects. The module delivers all the detail of True Systems' other models, with serious analogue depth and warmth.

www.true-systems.com

The X-Rack Stereo EQ Module is a stereo version of **Solid State Logic**'s console Channel EQ. The EQ has high and low bands, switchable between shelving or fixed Q bell curves and two mid bands, each with variable Q control. The module can alternate high, low, and mid bands between SSL's E and G series console EQ characteristics to provide an even more versatile EQ design.

www.solid-state-logic.com

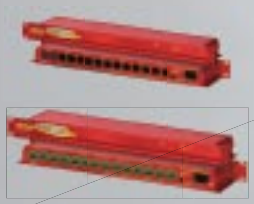
TC Electronic's LM2 is a precision loudness and true-peak meter that conforms to American, European, and Japanese metering standards. All of the vital numbers are displayed on the front panel, but by connecting the unit to a computer via USB, you can access a real-time radar screen readout.

www.tcelectronic.com

The RM Series is **Tube Tech**'s solution for the modern studio set-up. It differs from 500-Series units in that the PSU directly provides all the high voltages needed to operate tubes. The RM Series currently consists of the PM1A mic pre-amp, EM1A EQ, and CM1A compressor.
All modules in the RM series are built to the same standards as Tube Tech's 19-inch units.

www.tube-tech.com

Sonifex has extended its range of Redbox audio distribution amplifiers. One of these additions is the RB-DA6P. It differs from the RB-DA6 in that it uses Neutrik Phoenix style connectors instead of XLR inputs and outputs. Each unit is shipped with the mating connectors so that wires can be simply terminated using a small flat-blade screwdriver.



www.sonifex.co.uk

The Little Bustard is **Thermionic Culture**'s second valve summing mixer. It is designed to compliment the Fat Bustard valve summing mixer by increasing the number of available inputs.
The Little Bustard can also be used as a stand-alone mixer with six stereo pairs and four mono inputs.

www.thermionicculture.com

The 4-710D is a four-channel 'Twin-Finity' mic pre-amp and DI with dynamics. It is based on **Universal Audio's** original 710 Twin-Finity pre-amp. Four mic pre-amp channels with with true-bypass 1176-style compression allow for continuously variable tone between 100% tube, and 100% solid-state.

www.uaudio.com

Colour Grading Part 8

KEVIN HILTON continues in charting the history of colour grading, in this issue uncovering how power balances precariously between the designers and users of equipment.

As technologies become established the balance of power shifts subtly but markedly from the designers to the wider market of the people who actually use the equipment. This happened earlier in the development of colour correction technology than in other areas of post-production equipment – the two leading grading systems, da Vinci and Pandora, were instigated by graders – but everyone has different ideas about how things should be done so products continued to evolve.

Computer technology has played a major role in this. Each increase in processing power has allowed more to be done in software, bringing us to the point where dedicated hardware has gradually lost out to generic PC or Mac workstations. The specialised business can now be performed on a fairly standard computer using reasonably-priced programs, although the high-end post facilities still rely on systems designed specifically for the task.

Core Changes

The roots of this change can be traced back to the mid-1990s. Dedicated colour correction systems were established in the market by then, with da Vinci and Pandora vying for top position. From the outset da Vinci offered an external primary and secondary colour corrector with its telecine machine control devices. Pandora, on the other hand, initially confined itself to TK controllers.

In 1995 da Vinci replaced the integrated non-graphical user interface 68020 CPU on the Renaissance workstation with an external SGI Indy system. This incorporated what was claimed to be the first colour graphical user interface for a da Vinci colour corrector. It was marketed under the name Artisan but the American company was forced to change the branding after an objection by Strand Lighting, which was producing a lighting control panel of the same name.

So da Vinci's Artisan became the less romantic and much more functional 8:8:8 DUI (da Vinci User Interface). A variant of this was the da Vinci Light, essentially the 8:8:8 DUI with no 8:8:8 cards. An interface card controlled the internal colour corrector on the telecine machine, with two configurations available. One was a DUI based on an SGI Indy; the other worked an SGI o2 platform, which was known as the Toaster. Both worked with the new control panels introduced by da Vinci at the time.

Network control panels for da Vinci systems came on the market in 1996 and the following year the manufacturer shifted completely to the o2 computer as the core of the 8:8:8 DUI when SGI discontinued the Indy.

Moving With Progress

By 1998 telecine equipment manufacturers, primarily BTS and Cintel, were responding to the move by broadcasters and post-production facilities into working with data files instead of film or video tape. This resulted in a new breed of telecine – the datacine. As digital intermediate (DI) became the predominant way of working the datacine evolved into the digital film scanner, a progression that will be examined in a later edition of the Video Guide.

Following The Trend

Colour correction developers followed the trend. Da Vinci introduced its 2K system, which was designed to handle standard and high-definition images as well as data. Most important of all, plenty of space was built into the base platform so it could be upgraded as technology and requirements changed.

The standard version of the 2K offered In/Out Primaries, Secondaries, updated Power Windows (da Vinci's trademarked masking technology) and a new user interface. Like other da Vinci systems of the time the 2K was based on an SGI o2 computer but latterly it had to run on Linux to allow updated software to be included.

A Power Tiers Option appeared in 1999. This added up to eight channels to the core system. Each one featured Power Windows and complete primary and master secondary control.

> "Because grading had moved on beyond just fixing basic problems and errors in the raw film stock, Pandora accommodated the RCA ChromaComp into its system to give colourists the flexibility for secondary correction."

Developing Apace

Across the Atlantic British company Pandora continued to develop its Pogle telecine controller, which is still the basis of its product range today. This allowed graders to remotely control the internal primary colour correctors on their telecine machines.

Because grading had moved on beyond just fixing basic problems and errors in the raw film stock, Pandora accommodated the RCA ChromaComp into its system to give colourists the flexibility for secondary correction. This device was used in conjunction with Pogle for several years, during which time Pandora's developers, led by Steve Brett. concentrated on getting the best out of the telecine machine.

Shifts In Focus

The focus on controlling primary correction was not the only fundamental difference between Pandora and its American rival. The da Vinci approach, during most of its existence, was to lock off the TK and deal with colour correction downstream. Pandora's philosophy was that by keeping all activity on the telecine machine the pictures produced would be clean and free of noise.

Pandora began to re-consider secondary colour correction when it started to sell Pogle into da Vinci's ▸

GLOSSARY

PEC
Photo-electric cell
In general terms this is an electronic device with an electrical output that varies in response to incident radiation, in particular visible light. Which is why it is sometimes known as an electric eye. In telecine and colour correction a PEC is the unit that changes light from the projector scanning the film image and converts it in electrical energy, which in this case is the video signal. The most common form of PEC used today is the photodiode. Also called a photoconductor diode this is a semiconductor diode in which the reverse current varies with illumination.

REFERENCES
Cintel International
www.cintel.co.uk

Steve Brett, Pandora International
www.pandora-int.com

Ray Friend, Da Vinci/Blackmagic Design
www.blackmagic-design.com/davinci

Colour Grading Part 8

home market, America. The British company teamed up with LA facilities house Encore Video to develop the Prism analogue colour corrector. This featured Kilovectors, which were introduced on to the market by da Vinci in 1991. Pandora bought this technology in, giving Prism hue-qualified and scaleable correction on a defined range using three control panels.

Prism was the first colour corrector to be operated by tracker balls rather than joysticks, as was the case with other systems. Steve Brett saw this method of operation as the obvious answer to the question of what was the best way for graders to manipulate and control images.

Pandora marketed the Prism with the Pogle for some time but only between ten to 20 units were sold. As it was analogue technology it became regarded as very expensive when compared to emerging digital products. And at around $20,000 it was also pricey for Pandora to buy-in. While Prism offered pre-sets so graders could store corrections for individual images, its features and capability were limited alongside other systems.

Steve Brett and his design team began to consider possibilities for a digital equivalent of Prism. This development eventually became the DCP (Digital Colour Processor). This was a standard definition technology that brought a greater range of tools to the Pandora offering. Key among these was Pandora's answer to Power Windows, giving graders the flexibility to isolate specific areas of an image and manipulate colours within that selected area.

DCP formed the basis of later Pandora colour correctors, starting with the Pixi colour processor. This offered HD capability and was initially designed to work with Philips BTS machines. Part of the original aim was for Pixi to run with the FLH1000, an early datacine machine that did not go into production but which later became the Spirit after Thomson bought the BTS operation.

"Steve Brett and his design team began to consider possibilities for a digital equivalent of Prism. This development eventually became the DCP (Digital Colour Processor). This was a standard definition technology that brought a greater range of tools to the Pandora offering."

Downstream Ops

With Pixi Pandora moved into downstream operations, shifting away from doing everything on the TK machine. It was designed to work with both SD and HD signals. A further development was the MegaDef, which was essentially two Pixi units running together. This could be either upstream or downstream and operated with data as well as SD and HD.

Both the Pixi and MegaDef added primary and secondary colour correction and effects processing, all running in real time. The units offered the same features: control of the telecine PEC (photo-electric cell, see glossary) control for the Cintel MKIII and URSA machines or Neg matching/gains; control of telecine primary colour correction; six vector secondary colour control for the MKIII and URSA; Mega1 layer; Mega2 layers; and MegaGamma layer.

The Mega 1 Six Vector colour corrector was optional on both Pixi and MegaDef. It gave the colourist the ability to change Hue, Saturation, and Luminance of an image based on its original colour values. The system also had master control over Hue, Saturation, and Luminance. In addition it had features for desaturating both the highlights and lowlights in a picture. This meant that tinted blacks and whites could be avoided. Another feature was Wash, which created sepia tint effects.

All these changes are applied to the entire picture after the existing Mega1 primary Lift, Gamma and Gain. Then the picture is processed by Mega2 and finally MegaGamma.

Mega 2 offered primary correction, channel isolation, channel priority, channel editing, and MegaShapes. MegaGamma operated at the input and output stages of Pixi and MegaDef, giving unlimited control of red, green, blue, and Master transfer graphs. It had an easy to use interface that allowed the operator to draw in freehand, control multiple points and begin work from a flat graph. The system had the capacity to save an unlimited number of MegaGamma settings.

Next Month...

Next month's Video Guide will look at the appearance of Pandora's current colour corrector, the Revolution, and how it and da Vinci moved into the data world.

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Colour Grading Part 8

news

Digital Vision launched new software on to the European market during IBC 2010, alongside upgrades to its Nucoda grading and Phoenix restoration systems. The software release supports the updates to these existing products, bringing new features and performance.

These include Turbine, allows integrated and distributed background rendering to be carried out on Phoenix and Nucoda. In this way the main workstation is not tied up by preparation work. The system allows multiple projects to be rendered at the same time.

DVO Clarity is a noise and grain reduction package with automatic profiling of the source material, allowing high-quality images to be produced with hardly any artefacts. A third application, DVO Fix, automatically repairs faults in degraded film and other image media.

Digital Vision's flagship grading system, Nucoda, now has two new features and restructured pricing. Nucoda Fuse is aimed at mid-range DI grading and dailies work. Priced at €37,000 it offers tools for film, video, and digital productions, working in SD, HD, 2k, 4k and stereoscopic 3D.

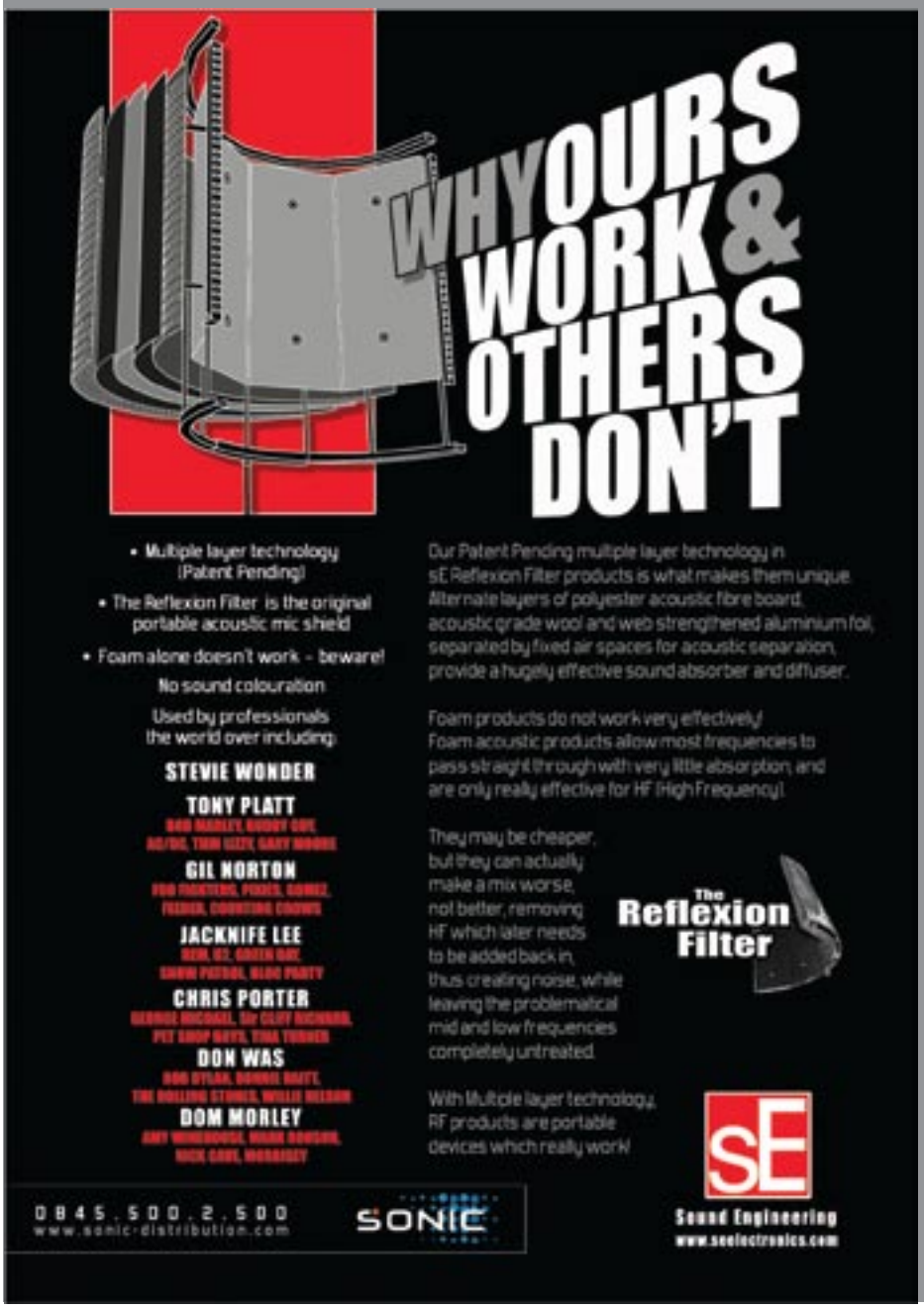
Designed for those getting into the grading market Nucoda Compose can also be used as a preparation station for Film Master or Nucoda HD. The new system is primarily aimed at commercials, film and television post, with a price tag of €8,000. The main Nucoda Film Master system has been re-priced at €63,000.

Martin Bennett, Vice President of Worldwide Marketing for Digital Vision, comments: "We've always been highly regarded for our image science and premium solutions

and with this new product range we continue that high standard. Customers at all levels can benefit from our technology with an array of solutions and price points that address specific tasks. Add to this our continued commitment to develop and include industry-leading tools for stereoscopic 3-D workflow and image enhancement. In short, we are enabling our customers to deliver the highest quality content to clients at a price to suit all budgets."

Digital Vision also introduced a brand-new range of film/image restoration products. At the high end is the Phoenix Finish, designed for restoring, re-mastering, and delivering images. In the mid-range is Phoenix Refine, which has tools for advanced image restoration and enhancement. The entry-level system is Phoenix Touch, which allows automated and manual image clean up and retouching.

Says Bennett, "Our products have always been competitive and these new lines address the way in which the market has transformed over the last couple of years. It has always been our intention to deliver mid-level and entry-level systems because we know this is a requirement for some of our customers and it also allows us to continue to develop our business in new markets. When you buy into the Digital Vision philosophy you're not just buying a system, you are buying into a hugely successful history and first-class support. We believe in taking our customers on a journey that continues and develops over many years; we don't just sell systems and shut the door."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52 Str1ng Cerebru5

Monster Sound

This month's 'who has got the silliest guitar' award goes to Danish guitarist Henrik Andersen, and 'the most advanced guitar in the instrument's history.' The 52-string, triple neck Manzer Medusa was constructed by Linda Manzer, using a process that we can only assume involved extreme levels of both radiation and Photoshop.

Andersen, who we are assured is big on the Indian classical scene, specified that the custom instrument's three necks should be those of a veena, sitar, and conventional guitar. The story of Andersen's triple-necked wonder actually came from DPA Microphones, because Andersen has chosen the SMK4061 miniature stereo miking kit as the transducer of choice for the Manzer Medusa live debut.

You can judge Andersen's atmospheric compositions for yourself via the link below.

www.youtube.com/user/StringsOfAndersen

Spooks 101:

Pumpk1n M4ssacre

With the annual ghoul and egg fest that is Halloween almost upon us, one website has decided to claw back the fright night from the wholesome cuteness of fancy dress and candy collection that the date has become.

"At what point did the carving of pumpkins turn into a 'cute' event? Where did we lose touch with one of the years coolest events?" *extremepumpkins.com* woefully laments… and so out come the machetes and firecrackers to wreak havoc on the mountainous piles of pumpkins world-wide, to carve them into, quite frankly, crazy and hideous apparitions that in the site's own words, will be lit "brightly enough to give visiting children suntans".

While chain saws, angle grinders, and jigsaws are among the recommended 'alternative' instruments used to create these beasts, the results are often inspired by detail. Check out the Mona Lisa pumpkin, or a number of wickedly grinning skulls, or even the wandering pumpkin mummy made out of pumpkin peelings. We can hear the motors of chainsaws raging into life even now…

Stratagems for seeing-off exceptionally bad pumpkins doesn't just include the traditional method of carvery; oh no, here, pyromaniac, quarantined, suicidal, and baby-eating pumpkins all meet their ends in decidedly grisly manners – all of which are a bit too 'extreme' to feature here. But if you're lacking inspiration for a particularly ghastly Halloween – look no further, and split open your pumpkin massacring kit.

And don't forget to bring your Factor 50 to *Audio Media*'s door come October 31.

www.extremepumpkins.com

www.pumpkin-carving.com (for tamer, more traditional pumpkin butchery, tools including the more usual cutting knives, strategies, and patterns)

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~ Lars Brogaard
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~ Paul 'Pab' Boothroyd
(AC/DC, Paul Simon, Paul McCartney, Faith Hill, Pink)

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~ Rob 'Cubby' Colby
(Juanes, Phil Collins, Prince, Shakira, Janet Jackson, Genesis)

"I've used Radial DI's on all my major touring projects for the last 4 years, with great success. They sound fantastic and are built to last."

~ Jim Warren
(FOH - Radiohead, Peter Gabriel, Nine Inch Nails, Doves, Turin Brakes)

"We use lots of Radial products on the Linkin Park tour. Sonically Radial DI's are superb and the build quality has proven to stand up to the road. I love my Radial gear!"

~ Kevin 'Tater' McCarthey
(Linkin Park, Kid Rock, Brian Setzer, Megadeth, Motorhead, Godsmack)

"In all my years, I've never used a DI that sounded this good and solved problems this easily. Radial DIs are head and shoulders better than anything I've used."

~ Jeff Warell
(FOH - America, Pat Benatar, Fleetwood Mac, Edgar Winter)

"The Radial SW8 auto-switchers have saved the show on more than one occasion. They have proven instant and seamless."

~ Richard Young
(Production Manager - Radiohead, Pink)

"The Radial Duplex is musical and transparent... and with me everywhere I go. Thanks Radial for a superior product!"

~ Tom Coster
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LIVE SOUND APPLICATION 2010 – 2011

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Welcome

Welcome to Live Sound Application 2010, a collection of articles sampling the uses and abuses of specific technologies in the professional sound reinforcement arena.

From club to theatre and from local venue to stadium, the *Audio Media* editorial team, plus selected industry partners, have put together a wide selection of application profiles for you to enjoy. There are interviews with some of the leading names in FOH and monitor engineering, system design, and more.

Our wave of top engineers includes Kevin 'Tater' McCarthy (Slash), Dave Aaron (Snoop Dog), Ben Milton (Faithless), Sven Geiger (Stoppok), Graham Edwins (Procol Harum), and Gert Sanner (Deep Purple). We've also got interviews with Tony Moore, the Director of Music, Art, and Development at legendary London club The Bedford; a technical take on the Edinburgh Fringe with Orbital's Luke Hyde; views from the hire and installation worlds, plus words from celebrated theatrical Sound Designer Mick Potter... And there's even more than that.

We hope this latest instalment in our series of International Buyer's Guide supplements will give you an insight into the working methods, tricks, and technology choices of peers in the sound reinforcement industry.

All of the supplements are available free from the *Audio Media* website as PDFs. There are now quite a number to choose from, including Microphones, Recorders, Consoles, and Monitors, as well as Live Sound Technology 2010, the Professional Audio Equipment Guide 2010-2011, and the Game Sound Special 2010. Several of these PDF versions include additional editorial content.

This promotional guide has been produced by *Audio Media* magazine (audiomedia.com), in association with *Pro Audio Review* (proaudioreview.com) and *Pro Sound News US* (prosoundnews.com). All three publications concern themselves with the business of audio production on tour, on location, and in the studio – for professional creatives, operators, technicians, and engineers everywhere.

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The Bedford – South London's Finest Venue

Although at a glance you could be forgiven for thinking it's just a big pub, The Bedford is in fact far, far more than that. Boasting three floors, five function rooms and five bars, the SW12 venue is kitted out with state-of-the-art pro audio equipment and has a history steeped in musical folklore.

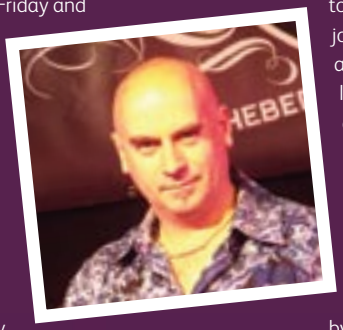
As a spit and sawdust live music venue in the '60s and '70s, The Bedford was instrumental in helping kick-start the careers of many up-and-coming acts, including super-group U2 and The Clash; and the 1980s saw the introduction of the Banana Cabaret comedy club, which soon became one of London's finest comedy venues and has been running ever since. Comedy shows still take place every Friday and Saturday, and Banana Cabaret's now worldwide reputation has attracted a multitude of talent over its 25 years including Eddie Izzard, Al Murray, Jack Dee, and Rob Brydon.

Opened originally as a hotel in the 1830s, The Bedford has always played a key role in Balham's community. That role has been maintained spectacularly well by the hard working team of experienced industry professionals – and volunteers – that look after the running of the venue today

"It's all about the people," insists Tony Moore, The Bedford's Director of music, art, and development, who pioneered its big push back into the live music circuit in 2003.

Without Direction

In the 90s the Bedford had lost its way in terms of delivering live music and was also under-equipped to carry out the job. Despite this, and its awkward location [in terms of commutability], Moore had no qualms about taking on the project when he was approached by the venue, and began contacting people in the Pro Audio world for assistance.



Tony Moore, The Bedford's Director of Music, Art, and Development.

Moore got a very good deal on a small-footprint Martin Audio Blackline PA consisting of a pair of F12s and F15s, which soon became The Bedford's in-house PA system. Today, and more than 1400 shows later, the system still has pride of place in The Globe – The Bedford's main live room, modelled on the famous Shakespearean namesake, which boasts a capacity of 270 over two floors – and Moore insists it has never failed him once in delivering top quality audio.

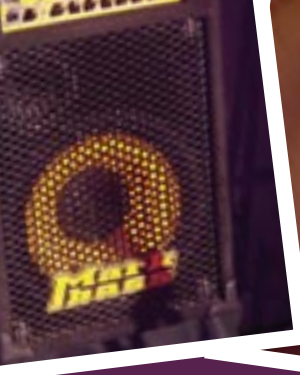
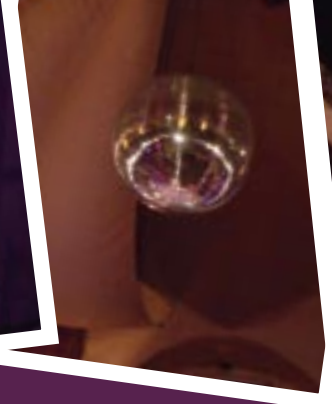
One of the early consoles used in The Globe was a 40-channel Soundcraft GB8. After a long and successful stint at FOH position, Soundcraft asked The Bedford to beta-test its new digital Si3 console, which remains the current FOH console today, donated to help Moore's charity of choice: The Teenage Cancer Trust. Moore says the addition of the Si3 to The Bedford's inventory brought flexibility and more control of the sound.

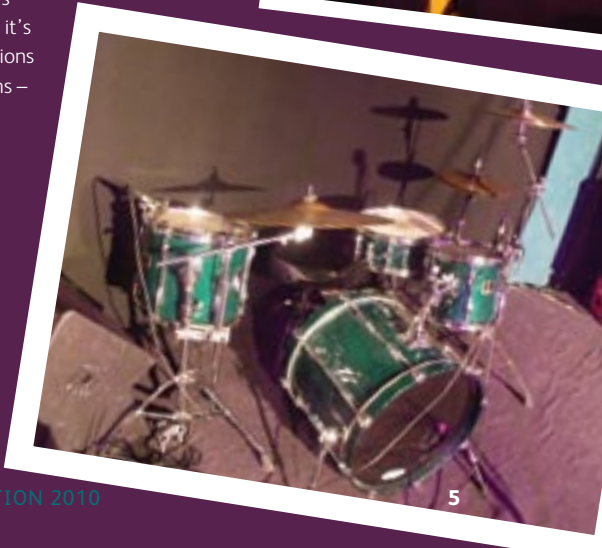
"The Si3 is The Bedford's dream console because it's just ideal for the format of the shows," says more. "All the inbuilt EQ, effects, and dynamics are astonishing; and it's no longer a challenge achieving ultra-quick turnaround times between artists. In fact, now when the artists come back, we just pull up the patches from when they last played and away you go – it's fascinating."

On stage, there are a pair of JBL VRX700 monitors, which Moore rates extremely highly in both sound quality and output; a number of QX speakers are scattered across the rest of the stage to provide monitoring to the musicians using the house kit, which consists of a Yamaha drum kit, a Yamaha stage piano, a Markbass bass amp; and a Line6 guitar amp.

Due to The Bedford being a predominantly acoustic environment, when choosing vocal mics, Moore was careful to choose something that didn't colour the sound at the top end too much. He opted for a number Sennheiser EV840s, which he chose due to their high output, full bodied sound, and reliability.

"Some mics tend to have that 'boost' in the upper mid frequencies, so that they cut through in a noisy environment," explains Moore. "But because we don't have that kind of environment, I think it's far more important to have a wider frequency response; and that's what the EV840 has – it's a fantastic live vocal microphone."



Up, Out, And Onwards

As The Bedford's popularity began to grow and grow, its team had to grow with it, which meant bringing in a booking agent and rotating its live sound engineers. Over the last twelve months, Lucy Dixon has been working directly for Moore as The Bedford's Chief Booking Agent.

"Lucy works so hard," says Moore. "She's got a great eye for what we should be doing and a great ear for good music – which is exactly what I need."

There are half a dozen or so live engineers that share the workload at The Bedford and six main hosts. Moore encourages internships and work experience students at The Bedford, though anyone interested should apply with caution – you won't just be making the tea all day…!

"When people come to me for work experience, they are working the minute they step through the doors. If I have accepted them, it's because I need them to work; this job is all hands-on, so there's always something to do," insists Moore. "We have people plugging stuff in, moving the stage around, some might be working on the website, or updating calendars and the venue's MySpace account; then they often morph into part of our team on a more regular basis."

Many shows at The Bedford are broadcast live on the Internet. The venue has three conference cameras set up around the building and Moore trains members of the team how to remotely control the pan, tilt, and zoom functions via a three-channel vision mix board. Shows are also recorded directly onto DVD at the artist's request.

Thirty five live artists each week is a hell of a lot – and Moore is planning on getting creative; he reveals that his next 'must-have' at The Bedford is a MADI board, which will allow for multi-tracking capabilities – and act as a springboard for The Bedford's own record label, which is already in the pipeline.

"We [The Bedford] want to be a part of a new future for the music industry where we can offer artists the opportunity to create recorded music out of our live shows at no cost," he reveals. "So often we find that the live performances at the Bedford sound so good because people are focused solely on the music and the crowds are so attentive, so if we can catch that performance in a live recording and create a product that they can potentially release in the future, then it's a way of giving artists another income stream and it gives us [The Bedford] an opportunity to have a share in that stream and help promote them through the venue."

Working The Dream

It could be argued that Moore is one of the hardest working people in today's live music scene, but he puts his success as a music promoter down to his spiritual way of thinking; his 'field of dreams' philosophy: 'build it and they will come'.

"I usually wait for people to come to me and ask, 'can I be a part of this?', because those are the people that are motivated and are excited by it – they've seen what we're doing and they want to be involved," says Moore. "And in a kind of strangely spiritual way, I believe the universe delivers to me what I need just when I need it, so when I am looking for somebody, somebody will turn up; it always happens."

Moore offers another tip for any aspiring music promoter wanting to take the plunge into the industry: "be overly enthusiastic". Hosting shows is something he has been doing for over ten years, the roots of which stem from his time as a close-up magician in his early years.

"When I'm hosting a show, I want to be into it – I have to be," he says. "If I am enthusiastic when introducing acts, then not only does the audience become expectant, but the artists themselves think 'wow, all that excitement is for us!' - and it raises everybody's game."

Seven Years And More

In the seven years since Moore's arrival, a plethora of artists have graced The Bedford's stage – and although The Bedford's philosophy is very much about giving the new artist a chance to shine, some major acts have also dropped in to play an acoustic set or two: recent shows from the Finn brothers (Crowded House) and The Who's Pete Townshend will surely never be forgotten.

What does The Bedford's future hold? Well, according to Moore, "we are currently in the middle of a massive reset in the music industry" which he feels he – and every other promoter – must keep a close eye on.

"The demand may be smaller, more focused, and may generate less money than it used to," Moore suggests. "But there will always be a demand for quality live performers and songwriters in this world – and I believe that the same philosophy applies to venues; if it's a great space with a great atmosphere, then people will want to come.

Despite the uncertainties within the industry, Moore remains focused on his goal to slowly improve everything within The Bedford and its brand; he is keen to build The Bedford as a touring concept that he hopes can one day fill other venues on its reputation alone.

"In theory, we could take The Bedford to Bradford, for example; we could sell out a 1,000-seater venue because people know that the Bedford represents a particular type of venue – and people want to see it and be a part of it," claims Moore. "But is a very long, slow process that only works by having passionate people involved and always working within our means; it's about managing expectations and building up reputations – slowly and passionately."

www.thebedford.com.uk
www.tony-moore.com
www.soundcraft.com
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PAs Get Environmentally Friendly

Clive Young discovers how manufacturers are working towards a greener goal.

"Less is more." That saying used to be an artistic credo, but in these environmentally enlightened times, it might well be a motto for the manufacturers behind speakers used in everything from simple podiums, to public space installations, to arena-level concert rigs. Growing regulations and interest have helped bring sustainability issues to the fore, but most loudspeaker companies have been making environmentally conscious efforts for some time.

Eric Andersen, Vice President of Manufacturing Operations at QSC, remarked, "It's been part of QSC since the day they started the business back in '68, but it's a bit more formalised now, in that we follow the three Rs – Reduce, Reuse, and Recycle. By reduce, you use less in the design, like fewer parts; using less material and resources reduces the costs, too. With Reusing, one example is that our shipping containers go back to the supplier so we reuse them over and over again. Recycle is what you'd expect, but also we'll take material from models that we don't build anymore or perhaps a piece of test or assembly equipment, and retire it to our field service people, because they're still going to support those products for quite some time."

Product design poses a huge opportunity for every company to adopt a green stance. "We are constantly looking for ways to reduce weight and materials in addition to engineering in more efficient use of power," said Richard Ruse, Director of Marketing for Portable PA at JBL Professional. "For instance, we've just recently released a new line of powered speakers, the PRX600 range, which are 20 percent lighter and 15 percent smaller than the line they've replaced. We've eliminated some plastic end caps and re-designed the porting, all of which reduces the product's material and carbon footprint. The smaller size and lighter weight means less fuel is needed to move the product over the lifecycle of the speaker."

In the touring world, PA systems took a great green leap forward with the adoption of line arrays in the 1990s, which reduced the number of boxes needed to cover a venue, reducing transportation costs in the process. "By introducing V-Dosc, the first modern line array, L-Acoustics opened the path to modern and ecological sound system solutions," said Jan Nguyen, Marketing Coordinator at L-Acoustics. "Today, our environmental commitment lies on ethics that are visible at all steps and levels of the company's structure, including recycling, manufacturing, storage, and sub-contracting, loudspeaker components, our building, transport, and product packaging, and social actions. We are convinced this is just the beginning. L-Acoustics develops and uses modern amplification technologies for power supply and hands-on system control using class D high power amplification of LA8 electronic amplified controllers for elevated energy efficiency close to 95 percent, versus 50 percent in the Eighties. Also, our loudspeakers consist of recyclable metallic parts, wood cabinets made with non-toxic product rejects and usage of non-toxic water-based paints."

Team Green Effort

Discussing Martin Audio's environmental efforts as a group, Anthony Taylor, Managing Director; Jason Baird, Research and Development Director; and Daniel Hoey, Director of Operations (and himself a certified Auditor of ISO14001 Environmental Management Systems) noted how the environment has shaped both the company's engineering and products: "The impact of our designs on the environment has formed many of the key building blocks of our engineering process. Principally, energy efficiency – by obtaining the greatest acoustic performance for the least power possible – and, similarly, minimising the impact of moving our products, through lowest weights and volume versus performance. The factory operates recycling policies and targets that extend into the offices, as well as the obvious constant drive to lower energy usage. The ethos of our approach is apparent in our products, too, such as the new MLA Touring System. Its Power Factor Correction reduces the current draw from the mains and thereby also reduces resistive losses in the mains cables. It was designed for the lowest form factor possible whilst maintaining highest transduction efficiency, thereby offering cost savings in weight and/or physical volume and increasing the efficiency of the conversion of electrical energy in to acoustical energy."

What Goes Around

While a company's products can affect the environment, sometimes surroundings can affect the company as well – case in point: Meyer Sound, which is based in Berkeley, CA. As Pablo Espinosa, Vice President of Research and Development at Meyer Sound pointed out, "Over the past several years, Berkeley has regularly been named among the greenest and most sustainable cities in the United States and was recently ranked as one of the top five cities best situated to lead the 'Clean Tech' economy. Naturally, Meyer Sound has taken a 'green' approach to the manufacturing and packaging of its loudspeakers; it has eliminated the use of CFEs in manufacturing, and its packaging was recognised by the City of Berkeley with an award. The company has invested heavily in an extensive recycling operation that goes beyond paper and glass to include materials used in its amplifiers, electronic PC boards, steel grids, and heatsinks, as well as copper, aluminum, steel, and batteries, as well."

Of course, manufacturers who truly want to adopt green programs need to look not only at their own policies but also at the efforts of their suppliers as well. Turbosound CEO/Managing Director, Simon Blackwood, explained his company's green practices, noting, "Everything we manufacture is ROHS and WEEE compliant. The wood is bought from certified sustainable sources. Our UK-manufactured product is painted in-house with water-based paint so no harmful chemicals are involved. Most of our suppliers are within the EU, so our carbon footprint is reduced – indeed, our woodshop partner is located on the same industrial park as our factory!"

While manufacturers are increasingly adopting green initiatives, however, do their customers care? As might be expected, answers range across the board. Don Roth, CEO of AmpliVox, a portable PA/podium manufacturer, remarked, "As more attention is drawn towards the greening of the planet and LEED-certified buildings and spaces,

many of our clients' industries are doing their part to conserve energy in various forms, asking for Green Cross Certification of materials. AmpliVox's raw particle board panels are made with 100 percent recycled and recovered wood fibres, and our PA systems and lecterns are made with environmentally friendly particleboard [making them] forest friendly, meaning no trees were cut down."

Eyes Wide Open

K-Array's CEO, Alex Tatini, has also seen growing environmental awareness in his clients: "Each day, it is becoming a more and more significant issue. Customers are interested in responsible manufacturing and are also interested in making the most responsible choice. Most customers are taking this more and more seriously, and there is constant growing attention toward this aspect. Eventually, it will become a must." Outlining K-Array's green efforts, Tatini pointed out, "All our powered products are based on high-efficiency digital power supplies. Additionally, all the boxes and chassis in our products are made with recyclable materials."

For most loudspeaker companies, however, customer interest in green practices is relatively small. Turbosound's Blackwood remarked, "It is currently rare that clients request details of our environmental policies – price tends to feature far more prominently. Government contracts tend to have a 'green reporting' requirement but to be frank, right now, it's not a major issue for most of our customers. We do expect interest to grow."

Still, if green efforts aren't an immediate concern, that doesn't mean that they're completely ignored either. As JBL's Ruse pointed out, "If there are two similarly priced products of equal performance or class but only one of them is 'green,' I think most customers would choose the eco-friendly product."

An Efficient Boom

One area where green loudspeakers are booming (so to speak) is the installation market. Bill Gelow, Director of Engineering at Electro-Voice, noted, "Energy efficiency is now almost a standard requirement for installations. Our very-high-efficiency transducers used with sixth-order passive crossovers reduce amp requirements, and the amps used are themselves highly energy-efficient. Processing can also make a big difference. For example, a NetMax N8000 can be used to manage a complete sound system in a way that can result in significant additional savings. The EV systems in the stadiums commissioned for a certain major global event in London in 2012 bear testimony to this. In addition, our manufacturing practices start with sustainably sourced wood, CARB2-certified plywood, through to burning waste to heat faculties."

Meyer Sound's Espinosa has also seen interest in the install market: "Mostly they are interested in learning about energy efficiency. High profile and modern installations are more and more interested in green products – for example, last year our products were used in The David Brower Center, which recently received the Building A Better Bay Area Urban Design award from the Association of Bay Area Governments. Our products were also selected for the new building for the California Academy of Science, which includes a remarkable array of environmentally-friendly features."

Thinking outside the box, some loudspeaker companies have found unusual ways to take care of the environment. For instance, Turbosound's Blackwood mentioned a number of employee-created initiatives, including a 'cycle-to-work' project that has a full 30 percent of his workforce commuting via bicycle.

QSC, meanwhile, is taking care not only of the environment with one policy, but its community as well, as Andersen reported: "We build our own speaker boxes and our sawdust is recycled through Waste Management, but there's always some wood left over that we're not going to use or which may be damaged. All of that goes to a local high school for their woodshop. They remove it and it's actually one of the ways that they've kept their woodshop classes going because they didn't have money. It's good for us and helps them out, too."

The Future Is Green

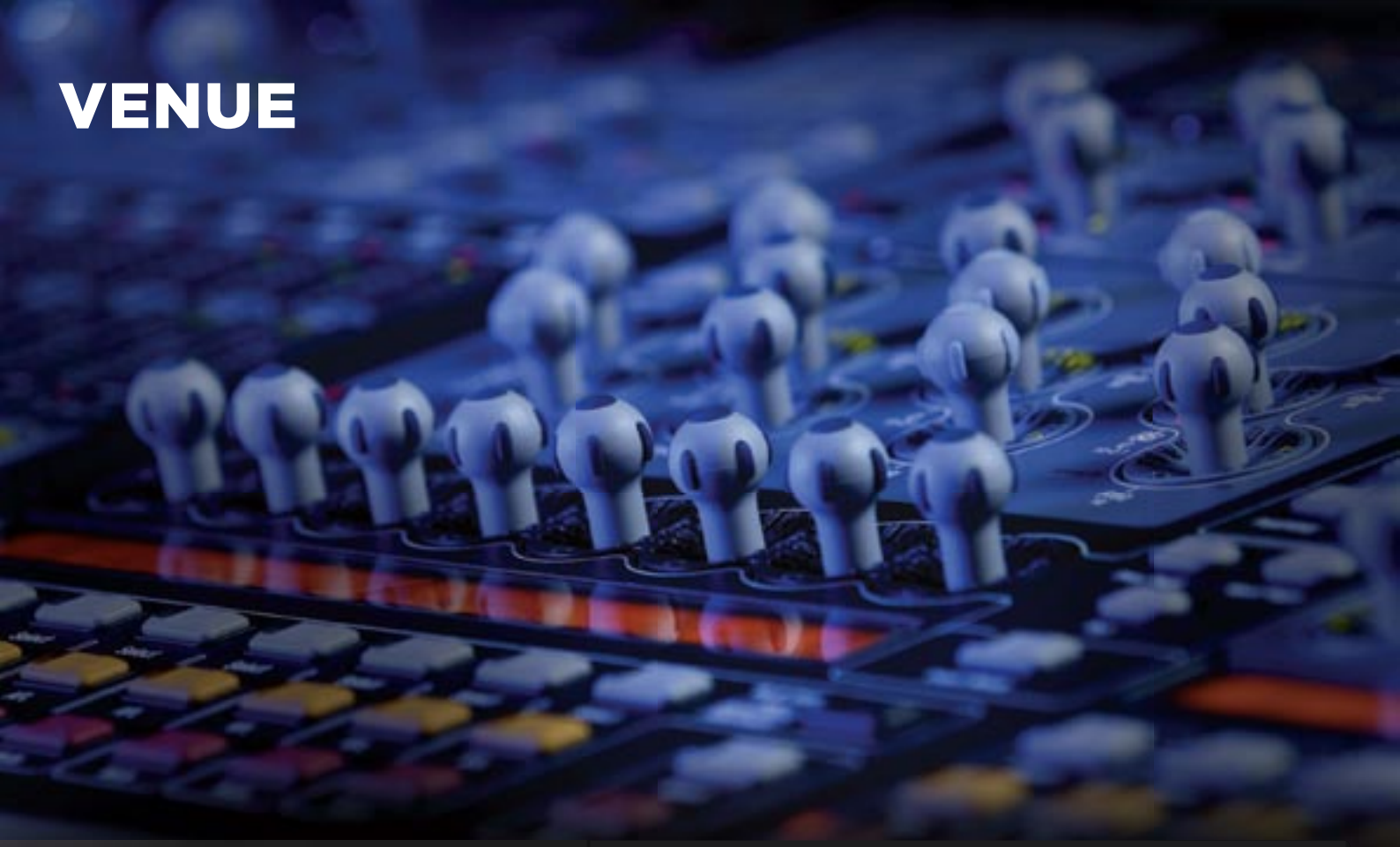
What does the future hold in store for green practices and the manufacturers that implement them? Paul Chavez, Director of Systems Applications for Harman Professional, opined, "If the US Green Building Council eventually incorporates a way for AV equipment to contribute to a building's LEED qualification, there will be much more attention from AV specifiers and manufacturers on the subject. Similarly, when InfoComm's STEP program is adopted by facility owners, we will see a change in what green means for the AV community."

The team from Martin Audio concurred, remarking that, "any likely significant change or tipping point will probably come through legislation or a dramatic change in the commercial environment. Although still in early stages within the EU, once [these practices are] linked to actual commercial gains for businesses of all sizes – as has been recognized – and [becomes] a main ingredient of the business plan for Far Eastern companies, it will become standard practice."

Eyeing the present and future, Meyer's Espinosa said, "Besides the increasing attention given to responsible manufacturing and power consumption of products, we're seeing more active participation and collaboration amongst all areas of the industry in the sustainability movement. The InfoComm Green AV task force is great example. And at Meyer Sound, we have been working closely with architects and consultants on building quality multipurpose venues with a smaller building and carbon footprint, using our Constellation system. Industry cooperation will be essential as we innovate new ways to reduce our impact on the environment."

Clearly, moving forward, green efforts will key for all sectors of pro audio – not just loudspeakers – even if only to ensure that products are acceptable to all regions. However, there's a greater purpose at hand, even when some factions believe that 'green everything' is merely a fad – and a marketing-driven one at that. "I understand why people would think that," said Turbosound's Blackwood, "but if one believes climate change is not a natural cycle, then surely we have to try to leave a planet for future generations to enjoy – and we should try to influence this at every level we can."

VENUE



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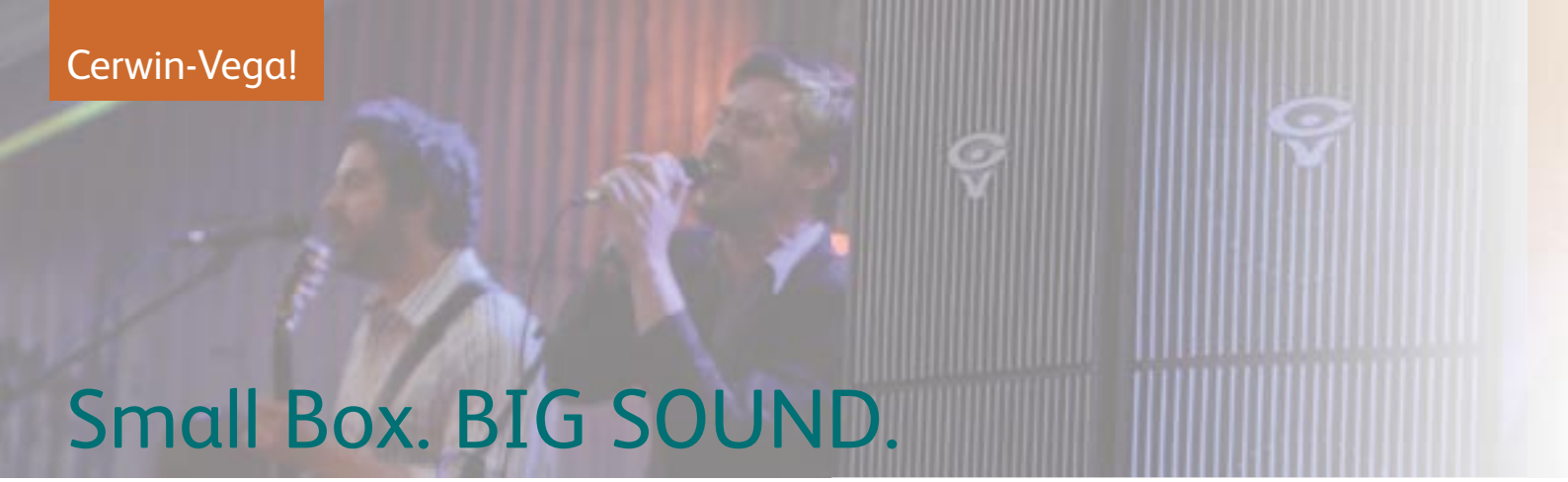

Small Box. BIG SOUND.

Avoiding compromise – three differing perspectives on the problems facing many space challenged live sound locations.

Are live performance spaces getting smaller or is it just the ever-expanding list of gear that must be accommodated in the same area? Event venues, clubs, mobile stages, and touring acts are space challenged like never before. At the same time there is a growing demand for bigger and better sound reinforcement for modest sized audiences – let's say up to 2,000 people. Flexibility and portability in live sound are 'must have' purchasing considerations, as the same gear that supports a rock band must also support acoustic acts, DJs, vocal reinforcement, sports, and events – indoors and outside. While there is no lack of choices when it comes to gear for live sound, a poor initial purchase can be limiting acoustically and from the perspective of scalability. The following case studies are perfect examples of some of the general parameters that must be considered by everybody shopping for sound reinforcement -- as well as some very unique considerations when choosing the right sound system.

Encore Club

Although you might have heard that everything in and about the state of Texas is big, that doesn't always apply to nightclubs. One of Encore's biggest concerns was finding a small and compact system that would fit within its space limitations but still allow it to be a major venue for the South by Southwest Music Festival. Owner Scott Smith explains, "We have a small stage and an enormous amount of LED lighting. It was a big concern to not have big speakers filling up our stage and covering our lighting rig." Active dual eight-inch speakers are flown from the ceiling and also used as compact stage monitors. Also on stage are three passive 15-inch two-way floor monitor wedges. Three 21-inch active direct firing subwoofers at the front of the stage rock the house. Smith adds, "Having the subs on the floor proved to be a big part of the audience draw to our club. I can tell you firsthand, standing in front of those is amazing and we get a lot of compliments on it for sure. We've managed to create a high-tech and great-sounding room without an enormous budget. I think it's a pretty cool thing for our club to be known for a quality sound system – especially in this town!"

Coke Zero Music Tour

Kicking off in May 2010, the Coke Zero Music Tour will hold over 100 performance dates throughout the rest of the year featuring Rock and Singer-Songwriter acts. Sports venues dominate the schedule and upcoming programs will also feature a regional Battle of the Bands performance. Most of the performances take place just outside the stadium so there is a tremendous amount of background noise that must be overcome so that the acts can be heard, loud and clear. Yet the entire stage and sound system is compact and portable. A jam-packed tour schedule demands that speakers have to be easily transported, set up quickly, and perform with zero issues. According to Stefan Gallard, Coca-Cola's Marketing and Sponsorship Manager, "What we are trying to do is connect with our consumers in a real and natural way that will continue to build our relationships. Music is of course an extraordinary way of accomplishing this." The tour's sound reinforcement is exclusively powered by Cerwin-Vega amplifiers and speakers. Gallard adds, "We can bring in the big stage production and top acts, Cerwin-Vega brings on the sound -- it's a perfect marriage."

Six-time Platinum selling group Point of Grace.

Rami Jaffee/Fonogenic Studios

Rami Jaffee has accomplished what most aspiring musician's dream of: making a living making music, earning Grammys, and performing on records that have sold in the millions. You might know Jaffee from his first big gig, playing keys with The Wallflowers, or more recently, with the Foo Fighters. Or maybe it's the hundreds of records he's lent his signature style to including Pete Yorn, Soul Asylum, Pearl Jam, Stone Sour, Joseph Arthur, Coheed and Cambria, Rickie Lee Jones, and Everclear to name but a few. Aside from playing anything with keys, he produces both from his Los Angeles studio, Fonogenic Studios, as well as on-the-fly for artists around the globe. In Fonogenic's soundstage recording room, where bands are recorded live, Rami installed a full Cerwin-Vega Active speaker system as the main aural attraction. He was pleased to find they were a perfect fit for the room and the application. "This sort of live recording is becoming more popular since it emphasises the interaction and performance of the band as a whole – not something that has been done regularly since multi-track recording came into popularity! Unfortunately, this way of recording poses issues with all of the open microphones during the recording process, including picking up the other performers, as well as bleed from any PA speakers being used. These speakers need to sound great so as to not adversely affect the tonality of the vocals on the recording." Last April, the studio was also the setting for a bi-annual celebration of the arts and music, dubbed 'CCCCP' (Constantly Changing Cultural Carnival Party), featuring a variety of Cerwin-Vega speakers delivering a deceivingly powerful replication of on-stage artists ranging from Joseph Arthur to Minnie Driver.

Actress and jazz vocalist Minnie Driver performs.

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On Stage Power

Crown Audio products form a vital and integral part of many live stage arenas – We finds out why.

Since its founding in 1947, Crown Audio has become one of the largest and most respected manufacturers of Pro Audio amplifiers. Lennart Dahlgren of Harman's Swedish distributor Septon Electronic talks about the pro sound and installation market and Jim Risgin, VP of On Stage Audio International, reveals why Crown Audio has been an integral part of the Illinois-headquartered rental company's inventory for the last 10 years.

Lennart Dahlgren – Septon Electronic

What do you feel sets Crown Audio apart over other manufacturers?
To be honest, I believe that the sound quality is its biggest strength; when I first listened to Crown Audio products, the difference in the audio was bigger than even I expected myself. Also, the built-in DSP and System Architect are big plus points; it helps to have that same platform for the entire Harman brand.

You take care of Crown Audio's distribution for Sweden – what's an average working day for you?
Yes – that's where my focus is. I find myself dealing with clients on a daily basis, concentrating a lot on the system solution. And also, with the System Architect and the networking between units it definitely helps make my job a lot easier.

What units are the most popular and why?
Well, there is demand for I-Tech, and XTi is also very popular, which is a cheaper amp with DSP built in.

A kind of entry level in Pro Audio?
Yes. And the new XLS Drivecore Series has a built in digital crossover; it's very lightweight and it sounds good as well – it's certainly a more affordable way into Pro Audio equipment.

Jim Risgin – VP, On Stage Audio Inc.

So you're a big user of Crown Audio amplification? What stands out in your opinion?
Yes – for about 10 years. We switched over after using different manufacturers and found the reliability and sound quality to be enough of a difference to invest in an entirely new amplifier line. Since then it's been the workforce of our inventory; we recently invested in a large number of their VRACK packages.

Why the VRACK particularly?
Because it's a pre-packaged system which enables us to buy the amplifiers one day and have them out generating revenue for us within a week instead of having to go through it all ourselves. We found that to be a tremendous advantage. It's also cost competitive – and it's integrated into the System Architect control software which makes it even easier to use; that's the networking and DSP that's built into the amplifier. It's unique because it's a rack package, it's got control panels, and it's generally easier than dealing with individual units.

You've been using Crown Audio for 10 years. Have you seen the brand develop much over that time or have you always regarded it as a market leader?
I have always thought of Crown Audio as a well established top brand, but in the last 10 years I believe that it has established itself as the pinnacle of networks: Harman's proprietary network control system – HiQnet; and a distributed DSP amplifier platform. It has networked more amplifiers than probably all other manufacturers put together; and in this day and age that is a huge strength, which, along with its outstanding audio quality and reliability, is the reason we consider it an industry leader."

Crown On Stage

On Stage Audio (OSA International) was established in Chicago, IL in 1985. Now in its 25th year of operation and with offices all over North America, VP Jim Risgin says that between the Chicago and Las Vegas offices alone, OSA International covers well over 100 shows per month. 70% of those shows include Crown Audio amplifiers, which Risgin swears by. He believes that Crown Audio offers 'the complete package' with its range of products and its ever-reliable support team, which he claims is the best he has ever worked with.

"Whenever we've needed a product replaced, we've had it delivered either on the same day or overnight," he says, "and a member of Crown Audio's team will always come on-site just to make sure that I'm happy; I have never had such a good service from any other manufacturer."

As well as the new high-output pre-packaged VRACK amps with built in DSP, Risgin reveals that OSA International also stocks a host of other Crown Audio amplifiers, which are used in a variety of Pro Audio applications.

"We have a bunch of I-Tech, I-Tech HD, and the older Macro-Tech models," says Risgin. "The smallest applications are the simple ballrooms with breakout systems – a couple of speakers on sticks; and the largest are the arenas, some of which have over 20,000 seats."

"Our ability to set amplifiers in unique and sometimes bizarre locations means we often get stuck in challenging situations," reveals Risgin. "Having the ability to distribute, control and monitor with reliability is critical to us."

Crown Audio
w www.crownaudio.com

DiGiCo SD8 Ticks All The Boxes

Ben Milton, Monitor Engineer for archetypal electronica band, Faithless, talks about his use of the DiGiCo SD8 and why it is perfect for their current tour.

One of the founders of digital mixing technology, UK manufacturer DiGiCo has become a watchword for innovation, ergonomic design, and superior audio quality. Its range of products spans almost all levels of the live sound market, from the largest, most complex production with the SD7, to the most cost conscious with its most recent console, the compact SD9.

Ben Milton, Monitor Engineer for archetypal electronica band, Faithless, talks about his use of the DiGiCo SD8 and why it is perfect for their current tour.

When did you first start using DiGiCo consoles?
Since back in 2002 when a sound designer friend of mine, Bobby Aitken [*We Will Rock You, Mamma Mia, Dirty Dancing*, etc], turned me onto to them. I have been specifying them when I can ever since then.

Why did you decide to use the SD8 for your monitor board on the Faithless tour?
When I was putting together the monitor spec for Faithless, I wanted to use the best sounding console with the smallest footprint. We were starting the tour in European theatres, some of which have very limited space onstage – the Paradiso in Amsterdam springs to mind – so it was crucial that I kept my footprint small and flexible. I needed a mixing desk that was also capable of having at least 60 inputs and 24 output busses and 36 input faders displayed on the surface. The SD8 ticked all the boxes.

I have seven wedge mixes on stage and eight stereo in-ears, and the two solo busses have been invaluable for monitoring in-ears and wedges. In addition to this, I have a large set of side-fills, tech mixes, and effects.

Has the SD8 changed the way you work?
I started the rehearsal period with a large rack of outboard FX that I was going to use, by the time we loaded out I had a big pile of FX units on the floor and was using the SD8's onboard FX.

There is a large section of the input list that is electronic, so my set-list is very snapshot heavy. As the music never stops during the set the cross-fade function has been invaluable.

Has the desk's sound quality lived up to your expectations?
I think the SD8 sounds fantastic. The EQ is especially good. Spill has been an issue for me on stage. I have the side-fills almost flat-out but also have 16 condenser mics on a percussion/drum set up, so it has been crucial that the EQ was incredibly fine.

How does the SD8 stand up to the rigours of the road?
Damo Pryor of Britannia Row Productions put together a fantastic system for us, which has been on the road for six months now, running a dual SD8 system over the last couple of months to cope with the schedule of playing 36 consecutive festivals. The SD8 has not missed a beat.

Are there any particular features you like or simply make your job easier?
The gain-tracking feature has been great for double picking up inputs: it meant I could have a set of input channels dedicated for in-ears and a set for wedges. I find the editing functions within the cue-list quick and flexible for writing monitor changes to where I need them. Being able to import and export presets between my two SD8s has been very useful as well and the dynamic EQ has been great for using on backing vocals where the artist might be on and off the mic throughout the show.

I always want the technology to be as transparent as possible to the performer, touring the same console and equipment not only brings continuity to the live show, it enables the artist to focus on the show musically, especially in the sound-check free environment of the festival.

As with all consoles in DiGiCo's SD Range, the SD8 employs the power of Stealth Digital Processing™ via a single chip super FPGA engine. It has a fixed architecture and gives superlative audio performance with exactly the same audio quality as the flagship SD7.

The control surface has 37 motorised faders (or 25 in the SD8-24), dedicated and multi-function control knob and electronic labelling and a 15-inch super high resolution, touch sensitive TFT LCD backlit display.

The SD8 has a feature set that provides up to 60 stereo inputs (equivalent to 120 channels of DSP), 24 busses (stereo or mono), plus two solo busses and master (equal to over 50 busses), four band parametric EQ (with dynamic EQ on up to eight channels), hi and lo pass filters and dynamics (including up to eight instances of three-band compression) on all inputs and outputs, 24 graphic EQs, eight stereo effects, and a 16 x 12 matrix.

When fitted with the optic option, the SD8 can have up to four racks connected to it, providing a huge pool of 240 I/O to route to and from.

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Designed By DPA

An interview with Mick Potter, Sound Designer.

How long have you been using DPA microphones for?

"I've used DPAs on close to 100 productions since *Saturday Night Fever* in 1998; either the DPA 4065 omni headband or the DPA 4061 miniature omnis on all cast members depending on the type of show.

"I've used them for so long because they sound much better than anyone else's mini condenser mics. They have a huge amount of gain before feedback for an omni mic, while maintaining a transparent sound that is critical in the theatre with multiple omni mics open on stage. Everything needs to be set up around high gain before feedback, at the same time maintaining a very natural vocal sound.

Why are DPA mics so suitable for the theatrical productions you work on?

"DPA miniatures have been hugely important in theatres because doing Andrew Lloyd Webber shows you're running mics at much more preternatural and dynamic levels than you might on a more naturalistic show. Until DPA that wasn't really possible; other mics would sound much more ambient and colour the sound. The DPA 4061s are phenomenal in this respect.

"In the theatre you're always fighting for space and consistency, so a miniature 4061 stuck on a guitar won't get knocked or banged, and maintains a consistent position in relation to the instrument. I got into using DPA 4061s in the orchestra pit because all their miniature condensers sound as good as large diaphragm condensers, you can get them exactly where you need them, and the musicians aren't aware of them so they don't knock or move them. You can get the positioning critical, and nobody else makes small condensers that sound that good."

Given that you specify DPA miniatures for so many productions, have you provided them with any input into the design process over the years?

Saturday Night Fever was one of the first major uses of the 4065s once they'd gone into production, and we went through quite a bit of work with DPA in terms of resonance in the tubes and things bending rather than breaking. But no matter how closely I've got involved with DPA and their designs, I still don't understand why an electret omni microphone can pick up much less noise off axis to the same sensitivity of another mic, and they sound fantastic.

How do you begin work on a new production?

When presented with a new show I work out what the brief is, which is easier with Andrew as I've done almost all his shows for the last eight or nine years, so I know how he works, what he's expecting. Andrew's very aware of sound and its effect on orchestrations, music, and dynamics, so you can work closely with him and pre-empt anything he might want to achieve.

Andrew's latest show, *Love Never Dies*, was pretty straightforward. Unlike most productions, the album was recorded before work began on the show. As there was already a fully orchestrated album, we knew the dynamic of the show and the music before we started.

A lot of this show is in surround, and we've tried to make it sound big, not loud, with lots of keyboard sounds in surround, trying to replicate the sound of a big opera house. If you were listening to an 80-piece orchestra, you'd get a lot of reflected sound that you don't get in a small theatre with 20 musicians in a pit. It's been an evolutionary process, which started with *Bombay Dreams* in 2002; that was about movies, and part of the brief was to make it feel cinematic. It became the blueprint for a lot of Andrew's other shows because we found a way of working with real orchestra and synthesised orchestra and surround and reverb, trying to get a big sound.

The Phantom Loves DPAs

***Love Never Dies*, Andrew Lloyd Webber's sequel to *The Phantom of the Opera*, is playing at London's Adelphi Theatre, with cast and orchestra miked up with DPA microphones, specified by Sound Designer Mick Potter and supplied by Autograph Sound Hire. *Love Never Dies* continues the story of the Phantom, moving from Paris to Phantasma, a fabulous, early 20th century showground in Coney Island, New York.**

All 36 cast members are miked with DPA 4061s, with the principals wearing two each with dual transmitters and receivers. The 21-piece orchestra is miked with a selection of DPA mics including 4022 and 4011 cardioids and 4007 condensers across brass, woodwind, and percussion. For the string section, Potter has chosen a combination of 4011s as ambient mics and 4061s for close miking.

"The balance between these two mics changes per cue depending on the required feel," says Mick Potter. "In the big cinematic moments the mix is biased towards the 4061s and in the more subtle orchestral moments the 4011s feature more."

Backstage, sound numbers two and three, Clare Hibbert and Bram respectively, are responsible for miking the cast. Due to their small size, the 4061s can be concealed in wigs, hats, and even an eye patch. "They are consistent, easy to work with, and pretty much stay put, which makes our job easier," says Hibbert.

***The Phantom of the Opera* made its debut in 1986 at London's Her Majesty's Theatre, where it continues to play, with a new sound design by Potter which also includes a cast and orchestra utilising entirely DPA microphones. It has been seen in more than 25 countries and by more than 100 million people worldwide.**

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Three of a Kind for JoeCo

During a long hot summer of festivals and tours, three FOH engineers share their experiences of the award-winning JoeCo **BLACK**BOX **RECORDER**.

Frank Martin at MerleFest 2010 with the BBR1-B

The 2010 MerleFest Americana Music Festival in Wilkesboro, North Carolina, played host to the BLACKBOX RECORDER's 48-track US debut. FOH Engineer Frank Martin (Media Production Associates) had the challenging task of recording main stage performances over the four-day marathon.

"Linking the two balanced BBR units and programming them to function as a 48-track recorder worked well. We took a 48-track feed from the main console, a Midas Heritage, direct out into the JoeCo boxes, looped out of the boxes into backup machines, and then lightpiped into a Yamaha DM 2000 for monitoring and a rough stereo mix. Everything worked as promised.

"Festival temperatures varied from 42 to 91 degrees Fahrenheit! There was so much pollen in the air we had to brush off the equipment several times a day, however the JoeCo Blackboxes handled conditions flawlessly, working day in and day out through the dust and heat. We also had a power outage during the Elvis Costello set. The recording equipment was powered on though not recording, so we were able to shut it off without experiencing any problems.

"While recording the main stage, I also had to set up a system at another stage, but never felt stressed about whether the BBRs would perform or not. After the festival, the hard drives were all shipped to Festivalink, a part of Airshow Mastering in Colorado, for mixing and editing."

Sven Geiger on Tour with Stoppok plus Worthy and the BBR1-U

FOH Engineer Sven Geiger opted for an unbalanced analogue BBR1-U at front of house on Stoppok plus Worthy's 2010 German Grundblues tour. The recorder was connected to the analogue front-of-house console via the console's insert send/returns.

"Interfacing the BLACKBOX RECORDER with my analogue equipment was easy and the sound of the BBR1's converters is amazing," said Sven. "Connecting to the insert points of the analogue console saved me a lot of time, as I didn't have to worry about my recording levels during the concert. The results were so impressive that Stefan (Stoppok) decided to use a couple of the live recordings on the new album instead of re-recording tracks in the studio. The audio was easily transferred into his Nuendo system and a pre mix made. The files were then brought to my own studio for final mixdown and mastering."

Graham Ewins on Tour with Procol Harum and the BBR1-D

The first digital AES/EBU BLACKBOX RECORDER unit went out on Procol Harum's June tour of the USA and Canada. The band played a number of solo headline shows in addition to sharing the stage with Jethro Tull. The recorder has also accompanied Procol Harum to Scandinavia and to European festivals during July and August. FOH Engineer Graham Ewins explained how the BBR1-D proved an ideal touring companion:

"Hook up was simplicity itself: connect the looms, connect the hard drive, power up, and off you go! We had to configure our new hard drives for FAT32 file handling, but once this was done, we were up and running very easily. A Yamaha PM5D was used at front of house for every show, chosen for ease of changeover and programming. Procol Harum use a total of twenty-two channels, with channels 23 and 24 used as a stereo pair for audience capture, so it was ideal both for creating a one scene 1-24 layer on the PM5D and for capturing the whole show using a single BBR unit.

"The BLACKBOX RECORDER remembers all the settings and puts each show into a folder by date. It also tells you how much disk space you have left. I had fun telling the system techs how much 24-track audio you could record with a Terabyte hard drive – 80 hours, unbelievable! I recorded at 24-bit 48kHz because that's what we archive at. A very easy to use and configure piece of kit; it also proved easy to transport, fitting into a 1U rack bag with the looms still attached."

Capture Live Multi-Channel Audio Without Taking a Laptop or DAW to the Show!

The BLACKBOX RECORDER offers a unique live multi-channel recording solution. Designed to attach to the inserts (or direct or group outs) of a live console, it captures up to 24 tracks of audio at up to 24-bit/96kHz without the need of a laptop or DAW at the show. Audio is recorded in Broadcast WAV format onto a regular USB2 FAT32-formatted hard drive, or Flash drive, that can then be plugged directly into any Mac- or PC-based Digital Audio Workstation for editing or remixing, without requiring any file conversion or copying.

Created specifically for live performance use, a number of fail-safe features are built into the 1U rack-mounted recorder, ensuring secure capture and uninterrupted signal flow at all times. The BLACKBOX RECORDER also offers a wealth of time-saving features including virtual soundchecking, disk drive formatting, the ability to create a headphone monitor mix with level and pan on every track, a Name Manager for creating templates and modifying track or song names, plus a range of shortcuts for speedily navigating menu options. For larger performances up to four units can be linked together, enabling the simultaneous capture of up to 96 channels of multi-track audio.

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Europop Goes Midas

Midas unites Eurovision with AES50 networking.

This type of multi-performer fast-changeover live-to-broadcast event is where digital audio consoles really offer significant advantages over their analogue cousins. Having supplied all the audio requirements for the Nobel Peace Prize Concert six months earlier, Oslo based AVAB-CAC A.S. was already proven competent in the logistical challenges of managing multiple performers, producing live sound, and an audio feed for broadcast. That experience led them to their decision to deploy exclusively Midas digital audio consoles for this year's event, held at the Telenor arena football stadium Oslo, Norway.

AVAB's Oystein Karlsen designed an audio network system to meet the requirements of the 2010 event, based around two Midas XL8 and two PR06 systems. The modular I/O units of the combined consoles formed a distributed network of inputs and outputs, all of which could be sourced and routed to/from by any and all of the consoles.

All of the audio sources were connected to Midas DL431 active input splitter systems, which then provided isolated feeds from each input to both PRO6 FOH consoles, the XL8 monitor consoles, and the NRK (Norwegian national TV broadcaster) OB truck. All of the Midas audio processing engines were located together, backstage in a managed area, leaving only the control surfaces out among the audience. This facilitated easy interconnections between the multiple console systems, which, once connected by AES50 links using CAT5 cable, become a single, synchronised audio network.

Positioned way back in the far corner of the venue, with no line-of-sight to stage, monitor engineers relied on video and radio communications with AVAB veteran, acting 'artiste liaison engineer' Per Ola Holdenn. Per Ola relayed instructions from any performers who needed adjustments to their in-ear mixes. The XL8's sample-synchronous, ultra-low latency audio provided the vital link between the live performances and the pre-recorded backing tracks.

An additional XL8 system was located in a rehearsal room within the venue, where performers could have a final run-through of their performance, complete with their IEM (in-ear monitor) systems, prior to entering the arena. This permitted last-minute changes to be made to their mixes, which were then stored to USB memory sticks, and uploaded into the live XL8 console just as the artistes took the stage.

At first glance, the Eurovision Song Contest appears a fairly straightforward event. The rules of engagement are simple: all vocal performances must be live, no more than six performers on stage at a time, and all musical backing pre-recorded in stereo. On the face of it, not a demanding event from an audio perspective. However, host the event in an indoor football stadium, impose a rigid live-to-TV timeline, the possibility that a technical issue could be the cause of a major international incident, and you have the ESC 2010.

Even though the FOH mix position was less than half-way down the venue, the size of the space meant that over 130 metres of cable had to be run from there to the stage. The extra distance required the use of the PR06 console's optical fibre snake connection, instead of the more commonly used Cat5, which is adequate up to 100 metres

Although the total number of input channel requirements were well within the capacity of a single PRO6 system, two consoles were deployed both with shared access to the Midas audio network, and all of the audio sources connected to it. This provided both a redundant console, and separate control surfaces for the two operators, Oystein Karlsen and Geir Ostensjo.

Karlsen was charged with mixing the actual performances, which left Ostensjo to concentrate on the presenters, audio from the TV company, and the overall audio reproduction.

The system performed flawlessly for the entire duration of the rehearsals, qualifying rounds, semi-finals, and the final. The only incident that required a re-run of any of the performances was an invasion of the stage during the Spanish performance, by an over-enthusiastic Spanish fan. There are some things that are beyond the scope of even the very latest audio technology!

Additional information:
The Hardware

FOH: **2 x Midas PRO6 systems**
Stage Monitoring:
2 x Midas XL8 systems
Rehearsal room:
Midas XL8
Green room: **Midas Venice**

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Wiring Edinburgh For Sound

Orbital Sound's Plug&Play d&b audiotechnik Approach to the Fringe.

The Edinburgh Festival Fringe is one of the UK's prime creative live-performance events. Every August, a mix of regular venues and spaces specially converted for the purpose host over two thousand productions across more than two hundred venues around the city. Now in its 64th year, the 2010 event is the largest ever, with 2,453 shows – 17% more than last year – catering for audiences from just 20 to several hundred.

The technical requirements for audio obviously differ substantially from venue to venue, ranging from a pair of compact loudspeakers on floor stands, with a small console and handful of radio microphones, to the equivalent of a full-blown West End musical. Orbital Sound has been involved with the Fringe for over 15 years, supplying rental systems principally to two of the event's prime operators – Pleasance, and Gilded Balloon – between them responsible for over 30 venues and over 250 shows a day. Over the years, Orbital has been continually evolving its knowledge and experience of the event and its numerous venues. A key challenge is to find new ways of handling the frenetically busy preparation and load-in schedule, as well as delivering the best quality sound – in line with the Fringe's high production values and audience expectations, across all sizes of venue.

Luke Hyde (L) and Tom Lishman (R).

As typical Fringe visitors tend to book up for a large cross-section of productions, consistency of experience is a critical consideration. The challenges are very different from the typical open-air festival with additional tented stages, as systems at the Fringe are up and running for close to four weeks, and are more akin to touring theatre – but with multiple, concurrent productions. The solution is a mix of careful system specifying, advanced planning, and an in-depth experience of what tends to work in a specific venue and which are the more problematic spaces.

The system of choice for the Orbital's Fringe activity is d&b audiotechnik, based on its combination of sonic consistency, reliability, and wide-ranging capabilities. Orbital's Director for International Theatrical Operations, Luke Hyde, explains the rationale: "For a project of this size and complexity, you have to make things as straightforward as possible if you are going to bring it all together in the extremely tight timescales involved. By choosing a single loudspeaker brand of d&b's calibre, you make sure that you are getting off to a flying start. One range means everyone has just one set of products to learn, and by maintaining a consistent approach year on year, you can ensure that the team is regularly trained and updated on the systems' capabilities – helping us all to get the best out of the them. Another key element in our choice is the sheer scope of the d&b range – it offers us an almost unlimited choice capable of covering the multitude of venue types and sizes, conditions and demands. Thanks to d&b's design approach, particularly with the amps, everything works straight out of the box and you effectively have a plug & play system. With 30 or so venues to set up in a week, you don't have to spend time on detailed configurations as the amps sort this out internally. We started the prep in June – ready to despatch it all in multiple trailers at the end of July. We have devised a special racking system – our

aluminium modular RacPac system – that has revolutionised the kit assembly process and really speeds up getting the equipment ready to ship. After more than 15 years with the Fringe, we know only too well that a smooth season relies on being organised!"

For 2010, Orbital has supplied a grand total of 149 d&b speakers across a wide cross-section of d&b's ranges, including the acclaimed Q-Series, E-Series, C-Series, and B-Series, complemented by 124 channels of d&b amplification. The line-up includes the highly flexible T-Series, making its first appearance in one of the Pleasance's new spaces for this year – the Ghillie Dhu cabaret/bar auditorium, where the requirement was for a compact, lightweight system with highly precise directional control. For Tom Lishman, Head of Sound for Pleasance, the benefits of the d&b approach are multiple: "Pleasance's sound team relies heavily on d&b loudspeakers, and we use them in venues of every size, from 55 seats to 750. We really appreciate the consistency of good design from the older C-series and E-series products, which have been used here for over 15 years, to the newer Q-series and T-series loudspeakers. One of the key features of d&b loudspeakers that helps us hugely is constant directivity. Most of our venues are only used as performance spaces during the Festival, and some have quite challenging acoustics. d&b's constant directivity design allows us to focus the sound accurately on the audience, and keep as much energy as possible out of the walls of the room.

"We are using T-series line array for the first time this year, in two very different rooms, and we think it is fantastic! In Ghillie Dhu, our new and beautiful cabaret space, its small size is critical so that the room doesn't look dominated by PA. Its good performance in longer throw applications helps very much in a room where there is nowhere to rig delay speakers. I stood at the very back of the room the other night to see Frances Ruffelle and her band, and I was very impressed with the sound from the T-Series."

"We are also using T-Series for a theatre performance in a large indoor quadrangle with a very long reverb time, and it is helping us to get the radio-miked dialogue heard in this challenging environment. We have tried other loudspeaker systems in this room in the past, and they have not worked nearly as well as the T-Series."

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Making Moves in the Live Sector

The Orpheus and LRX2 are just two front-liners in Prism Sound/SADiE's clever push into the live sector. We speak to a couple of mighty impressed users…

Having had its equipment used recently in some extremely high profile international live events, Prism Sound/SADiE has made a big push in the live sound sector, culminating in the development of a new product line: the Solid State H Systems.

We spoke with Funktion One's co-founder Tony Andrews, who used a Prism Sound Orpheus alongside an Ambiosonics rig at Glastonbury, and Toby Alington of Richmond Studio Productions, who tried and tested a SADiE LRX2 at the 2009 F1 Singapore Rocks concert and BBC Children In Need RAH shows.

Tony Andrews, Funktion One

What did you use Orpheus for at Glastonbury and how well did it perform?

We used Orpheus as a sound card for our ambisonics set-up at our *Experimental Sound Field* event at Glastonbury. We used it to take six channels out of the digital domain and turn them into an analogue signal that we could drive our crossovers and amps with. It's the most accurate interface we've ever used. By that, I mean the whole thing including DAC; the audio you get out of it is extremely correct.

So you created a top quality playback system?

Yes, exactly; and the sound was supergood. We hadn't realised this time last year how different soundcards can be in their treatment of audio and how different the software players are too. We auditioned many sound cards and it was very surprising just how different they could be. Some of the better known offerings proved to be rather poor which might explain the many low quality productions around today…

That is surprising… and how about reliability – any glitches?

None. We ran Orpheus for 12 hours a day for three days and it didn't fall over once. At *Experimental Sound Field*, we play the music we like - which is actually old school house music. We put six speakers in a circle – 25m across – hence the six channels, which is where the Prism unit comes in. You need faithful equipment to make the most of ambisonics, which is essentially signals arriving with specific phase relationships, and certainly Orpheus performed to the required level of accuracy extremely well.

Toby Alington, Richmond Studio Productions

When did you first come into contact with the SADiE LRX2?

Shortly after it came out. The bullet-proof aspect of the LRX2 is what we were interested in because there are very few multi-track recorders in the field that can stand up to the stresses and strains of hit-and-go at the start of a show and knowing that its going to be on the disk at the end of it!

You used the LRX2 on some major live shows – in what context?

I thought it looked like a great tool, not just because it could sit there and record a MADI stream, but also you could then do basic editing on it and have the whole SADiE software available. So, I used it as the main recorder at F1 Rocks in Singapore which was three nights work with four major artists per night; and then on the Children In Need show at The Royal Albert Hall, which was a big show – maybe two to three hundred lines - where it was dedicated to the orchestra.

So you pushed it to the limit on some fairly tough gigs? How did it cope?

Yes we did. It actually worked perfectly on both. Other systems have bitten me on the arse more times than I can remember and I found the LRX2 to be a bit smarter and a bit more communicative and intuitive to use. You get better feedback of what's happening and what you're doing; and you have got the dedicated panel on it so you're not just looking at a computer screen hoping it's telling you the right thing.

Are there any other advantages the LRX2 has over its competition?

It's nice and compact, which is an advantage - especially for de-rigs; if you want to go along and plug into an existing feed, then it's perfect. The LRX2 and the laptop fit nicely into a big shoulder bag.

A Solid Status

After speaking with a number of engineers after PLASA 2009, studio recording experts Prism Sound and SADiE decided to do some problem solving in the live sector. This resulted in the launch of SADiE's Solid State H System recorders (H64 and H128) which are capable of recording up to 64 or 128 tracks respectively and were designed to tackle the common problem of dealing with heavy and loud bass sounds at large rock concerts, which reportedly cause needles on hard drive platters to skip, ruining many live recordings.

Using Solid State technology rather than traditional hard drives, the units eliminate skipping, thereby ensuring that all recordings are 100% reliable

Prism Sound's Orpheus FireWire Recording Interface, which impressed Funktion One pioneer and sound expert Tony Andrews, who admits he is "known for slagging the industry", has line, mic and instrument inputs and was designed to get quality conversion and mic preamps into a 1U box; and SADiE's LRX2, which made an impression on Toby Alington – a live recording engineer at the top of his game - is a compact multi-track location recorder with eight motorised faders that can record and playback up to 64 channels using a MADI interface.

Prism Sound/SADiE says it is approaching the live industry from a couple of different angles: providing the highest fidelity playback systems; and simple and reliable recorders to capture concerts.

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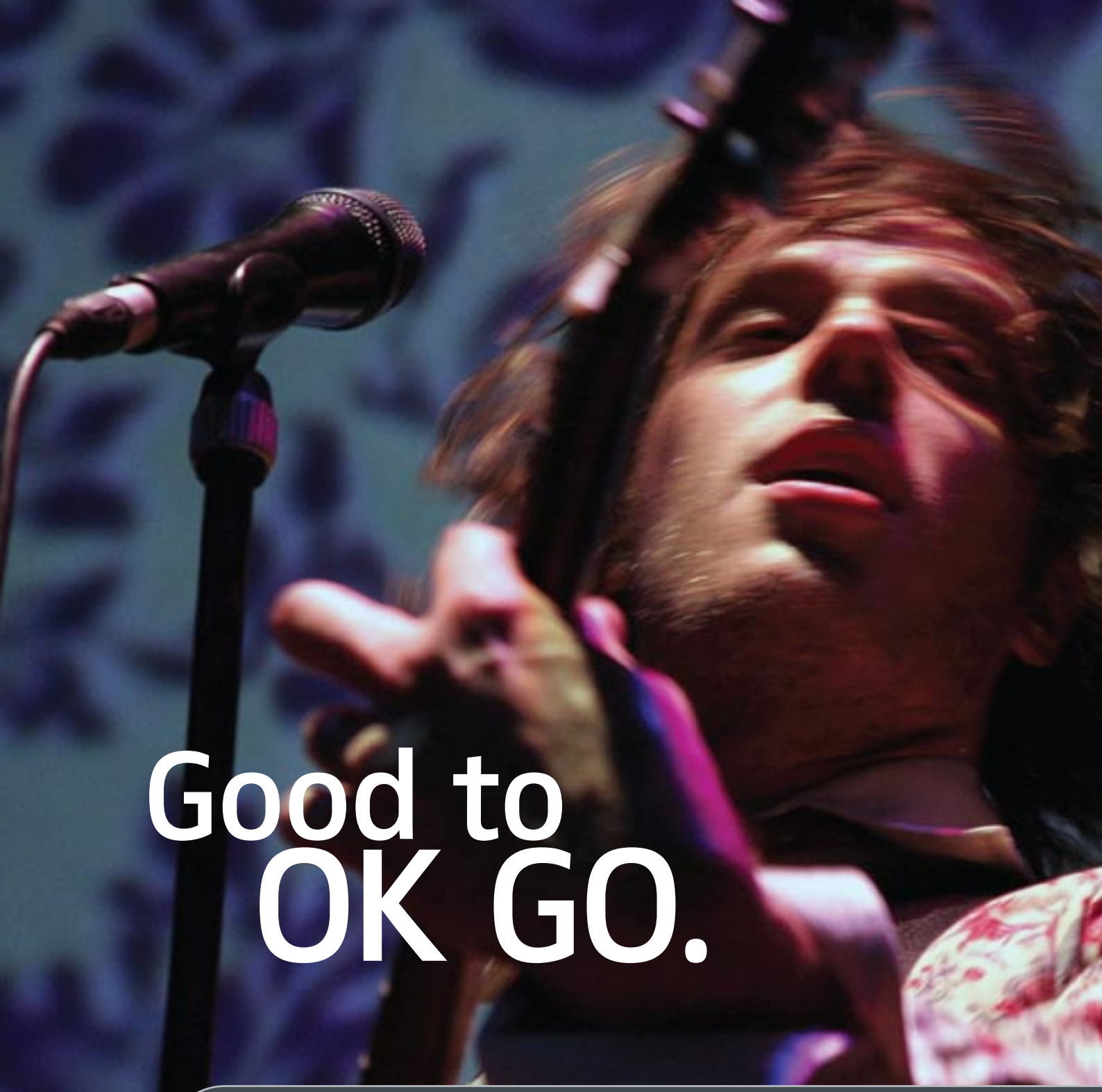

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Shure's New PSM900 In-Ear Monitoring System

The PSM-900 In-Ear Monitors.

Later… with Jools Holland goes with Shure's latest high-performance in-ear monitors

When it comes to high-performance TV, nothing comes close to the complexity of *Later… with Jools Holland*. The show has aired every year since 1992, regularly featuring seven or eight world class acts that perform seamlessly in front of a live studio audience. The calibre of musicians and the longevity of the show makes it one of the most respected music programmes to air, regularly pulling in over half a million viewers.

Since the show's inception almost two decades ago, one company has been entrusted with delivering the sound – the legendary John Henry's in London.

For over 30 years John Henry's has been the backbone of the UK's entertainment industry and festival scene, whether it's putting together concert touring systems, monitoring systems, or full blown concert and event production. *Later… with Jools Holland*, Wogan, Latitude, The Big Chill and Simon Cowell's 50th birthday represent a mere smattering of projects they've been involved with of late.

General Manager Robert Harding has been with John Henry's for 30 years, and in that time has become the go-to man for anything sound related in the entertainment market.

"I have a very big involvement with the equipment we buy here. As a hire company we are generally client-led in our purchasing of equipment – i.e., they ask for it and we'll go get it, but we are always looking at new products and some of those make their way into our inventory".

"Sometimes a product will come out and it'll take a year before you get clients requesting it, other times they'll be an anticipatory buzz around certain items. A good example of this is Shure's latest in-ear system, the PSM-900 – engineers are already requesting it, even though it's only been available for less than six months now. Word's already getting around and now we're really beginning to see them spec'd on gear lists for all events, big or small."

But even with Robert's wealth of experience there are still many questions to ask of a product wanting to make its way in to John Henry's amply stocked warehouse. "New products need to be road tested before we can recommend them to our clients. You have to make sure they're reliable and that people want them, and that you're not just buying something for the sake of it – you're buying it to improve your stock."

"Each week on *Later…* we tried them on one of the six bands as we only had one rack of them, so I found out who was using the most in-ears and then we'd convince the engineer to try these new Shure ones out. The bands that used them included Hot Chip, Macy Gray, Alicia Keys…"

A man of few words when few are needed, Robert sums up the PSM-900s based not only on his own experience but also from the feedback he's received. "We've tried them out, and they are very good. They work well, they sound good. And that's why we've bought some."

"We also have to look to the future. As far as some of the other in-ears we use from other manufacturers go, we're not going to be able to use them soon because they're not Channel 38 compliant – they just won't work after the 'Big Bang' in 2012 when they switch off the analogue broadcast and go completely digital."

Aden Gregory, who co-manages John Henry's audio department, has been closer to PSM-900s out in the field…

"I've been working on *Strictly Come Dancing*, *Later… with Jools Holland*, *Jonathan Ross*, most of the Maida Vale sessions for the BBC… and yes, we've been using Shure's PSM-900 in-ear monitors. They're much better than anything else we've used. The totally quiet background is what most people like about them."

"We like the compact size of the belt packs, and they seem really stable. I think a lot of engineers also like that you can whiz through the mixes on them, which is a really neat feature. You can go through all of the individual mixes on your monitor belt pack rather than listening through a desk. No one else is doing that. It makes things a lot quicker when you're setting up, because you can walk on stage and listen to every frequency and know that it's stable without having to change belt packs to see if each of them is okay."

"But the sound quality is the main thing, and that's what every engineer who's used them thought – they sound brilliant. And they sound very musical, they don't sound processed. Most in-ears sound like cheap radio and these sound like expensive FM. Much better dynamic range than you'd expect and they're ultra-stable. And they're quite a reasonable price. Plus you can use them worldwide because they've got a massive range of frequencies. This was the hang up with the older systems as you could only really use them in one country, so these new ones are perfect for those world tours."

But it's not just the engineers who laud the sound quality of Shure's latest in-ear monitors, as Aden suggests: "The artists have also said that they sound great. Other than that people just want things to work, and these things are solid." Solid indeed, largely due to the legendary and rigorous Shure testing process – details of which are largely kept under wraps. "I'm sure Shure drop these on the floor a couple of times to make sure they're up to it. You just know Shure gear is going to work day in, day out."

"So now we're going to start spec'ing the PSM-900s as a matter of course," continues Robert. "Why? We like them. We've bench tested PSM-900s on live-to-air conditions, you know… *Later… with Jools Holland* is live, *Wogan* is live, and we've tried them on a couple of other shows as well. They have some features on them that none of the other systems have got, and they sound better."

Robert Harding, John Henry's General Manager.

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Soundcraft's Purple Connection

FOH Engineer to Deep Purple, Gert Sanner knows a thing or two about consoles – and reckons that Soundcraft's is one of the best.

German-born Gert Sanner has been manning the faders at FOH sound since 1987. Working initially with cover bands and musicals – his first tour was with Oklahoma – his clients since have included West Side Story, The Who's Tommy, The Blues Brothers, Paul Young, Thunder, Alison Moyet, Deep Purple, and countless festival bands. His system tech credits include Slipknot, Slayer, Reading Festival, Leeds Festival, V Festival, Download Festival, Metallica, Steve Vai, Michael Buble, Nick Cave, Status Quo, and Madness. He is also in demand as a product demonstrator.

Gert is recently back from another mega Deep Purple tour that took in South Africa, Australia, and Asia, as well as much of Europe including Russia. "We were working mostly with locally sourced gear. With so much travel involved we just carry our own backline," says Gert. "This does give us the opportunity of trying out different PAs and desks.

"The venues vary in size from smallish theatres to giant stadiums. In Germany we regularly play to arena audiences of 13,000. In South America they can be vast. This last time round, Asia was eye-opening, Australia was most accommodating, and Italy was the most disappointing. Health and safety standards there are not high and we came close to pulling a few times. We're back on the road in October including a series of already sold-out German dates. I'm also doing a tour with keyboard player Don Airey in January."

How did your involvement with Soundcraft come about?
"When Deep Purple scheduled a US Tour in 2007, we decided to carry our own control package. Analogue was out the question because of the weight. So Rob Hodgkinson (Monitor engineer) and myself started to evaluate the different desks available. We did this in a very independent – and you could say clinical – manner. Besides good sound quality and easy operation, a few other factors were important. The desk had to be moveable by two people and must have small lightweight multi-core. There were many parameters to consider.

"The winner at the time was clearly the Vi6. But no one had ever toured one before, so we phoned up Soundcraft and asked for help. They provided us with a free backup console and a long list of phone numbers for emergencies. Luckily we never needed it. At the end of a seven week run through deserts with planes, trucks, and busses we took the boards apart and found just one screw missing. That was a great result and Soundcraft was very interested in our rather basic approach to testing. It has been a good relationship since then."

How did your relationship with Deep Purple start?
"I was the loudspeaker array engineer on a long tour five years ago. When the FOH Engineer Doug Hall had to leave to fullfil his commitment with Iron Maiden – the two schedules wouldn't allow him to do both tours – it was then decided that I was the only guy who knew the show and should cover for Doug. Thereafter, he became increasingly busy and passed the job on to me."

What is it like mixing for one of the biggest bands in the world?
"I don't know about biggest, but they are certainly one of the hardest working bands in the business. They are also one of the nicest to work for. And I guess not many bands can go anywhere in the world and fill up an arena with fans. We do go to some really cool places. The History of DP is crazy and colourful. There are many stories they can tell."

What are you working on at present?
"Deep Purple takes up much of this year, but I also do some festivals for SSE. I still enjoy going out as a System Tech. It is good to bring you back to reality and to appreciate the luxury of a white glove job. It also keeps me up to date with modern gear and methods. Building up this background knowledge helps me greatly when mixing. At the start of this year I was system teching for Michael Bolton around Europe. The third string to my bow is the freelance work I do with Soundcraft."

Do the Deep Purple members have strong views on what sound equipment should be used?
"The band members aren't that concerned – as long as it all works. Doing 150-200 shows a year across the globe, we look to specify gear that's widely available. Ian Gillan can be very specific and we carry our own line systems and microphones. Apart from that, consistency is the key."

What is special about the Vi6 console?
"There are plenty of great digital consoles out there and everyone has their own favourite. The VI6 is a very good sounding desk with very good internal effects and dynamics. It is a great package and very flexible. Just check out the amount of cards you can get – pretty much any audio format in and out. It also has an attractive price point and is easy to use. It's great for festivals with engineers who have not used one before. I actually think it's the best bang for the buck in the business. I have not met anyone yet who regrets buying one. Modern digital consoles have come a long way in a short time.

"I do training and demo-sessions for Soundcraft because I actually like the desk, and I think the company has great people who listen to what we (the users) have to say. The demos are also a good opportunity to meet other people in the business and exchange news and views. My relationship with Soundcraft is more like a good friendship. I really like the Vi6. So far it hasn't let me down whereas other desks have. That's one of the main reasons it's my first choice."

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Bringing Studio Sound to the Stage

Waves' power and flexibility means its plug-ins can be used in a wide variety of applications.

Waves is recognised as a leading developer of signal processing solutions for the professional, broadcast, and live audio markets. With the evolution of live digital consoles, and advances in networking technologies, Waves is leading the way in enabling live sound to make the same transition from hardware to software that has taken place inside the studio.

MultiRack SoundGrid: Bulletproof Reliability

Kevin 'Tater' McCarthy is the first Monitor Engineer to work with Waves' MultiRack SoundGrid. He is currently using this set up to provide in-ear mixes for musicians on Slash's world tour.

Slash's Kevin 'Tater' McCarthy.

MultiRack SoundGrid is a host application that gives users control over Waves plug-ins on the SoundGrid platform. The system is designed to provide a high-quality, convenient, and cost-effective replacement for multiple racks of effects units.

McCarthy, who used a different Yamaha desk every day while on the Australian run of Slash's world tour, was particularly impressed by the plug and play capabilities of the MultiRack system. "The sound of this thing is flawless, but the ease of use has been absolutely bulletproof for me, which is great when you have time constraints."

SoundGrid is an audio-over-ethernet networking and processing platform that gives users the ability to run large numbers of Waves audio processors using standard PCs. McCarthy has found that the system lives up to the manufacturer's claims of super-low latency, even when running chains with multiple plug-ins. "When you've got a wireless mic and the sound's going directly into the musician's ears, if there's any latency, he'll know immediately... to me, there is no noticeable latency."

Shaping Up Snoop Dogg

Audio Media talks to Dave Aron, currently on tour with Snoop Dogg, about how Waves plug-ins shape his FOH sound.

Audio Media: So, firstly, run us through a basic chain of Waves plug-ins that you might put on Snoop's voice.

Dave Aron: Well on the tour here I like to use the SSL channel a lot, I like the C4 plug-in to smooth things out a lot, and I like the CLA-76 series. I use those the most.

Dave Aron, on tour with Snoop Dogg and long-time user of Waves.

I run the CLA-76 to compress a little bit more and give it a little control and give it some grit, and then I might follow it up with the SSL channel strip, where I can add a little more compression, but it's a little different compression, you know it's not quite as hard, it's a little more controllable, and then of course I like to get a little touch of EQ there.

AM: How do you balance those with your console controls?

DA: I do my show EQ'ing a lot of time off of the console EQ, where I'm cutting frequencies, trying to get the most gain out of the mic without having it ringing in the room or anything.

So I use my console EQ to get the basic tool of that to get my gain out of his mic, and the EQ on the SSL channel strip to actually make it sound good. I use it to make it a little more pristine and give it a little more usable high end that's not going to cause problems with the PA system. It seems to give a smoother, less shrill high end, and I like that.

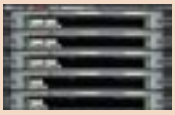
Then I use the C4 at the end if I need to smooth out certain trouble frequencies that I don't want to cut right out. I want to have them in the signal path, but if it becomes too much here and there, it catches those problem frequencies that I'm having trouble with on a particular night, or at a particular venue, or for that particular source.

AM: How does your live usage of Waves plug-ins relate to your use of plug-ins in the studio?

DA: I do a lot of subtractive EQ when I'm doing live, and I do a lot more additive EQ when I'm doing studio stuff. So when I'm doing live, I find that I'm trying to mostly tame frequencies and get the ultimate gain out of sources, and with the studio I'm not so concerned with having to cut frequencies to get gain, it's more about trying to get the best sound.

I use the plug-ins in the same way that I would do in a studio to make things sound better, whereas I use the EQ on the console, or maybe a graphic to get the gain out of the mics and control feedback and all the other problems you get from having open mics on the stage... I use Waves plug-ins to make things sound more like I do in the studio, and to get a more pristine sound.

WavesLive MultiRack



MultiRack, either SoundGrid or Native, is a host platform for Waves audio processing plug-ins, designed especially for live sound applications. It provides a software equivalent to outboard hardware processing racks, and signal flow to and from your console is similar to what you're accustomed to with traditional hardware racks. MultiRack allows you to program up to 1,000 Snapshots per Session, insert up to eight plug-ins per rack, set latency alignment, and control everything via MIDI directly from your console surface. MultiRack SoundGrid uses the SoundGrid platform to offer extremely low latency processing. Coupled with a laptop and an audio interface, MultiRack Native can be used to process channel inserts, auxiliaries, and more.

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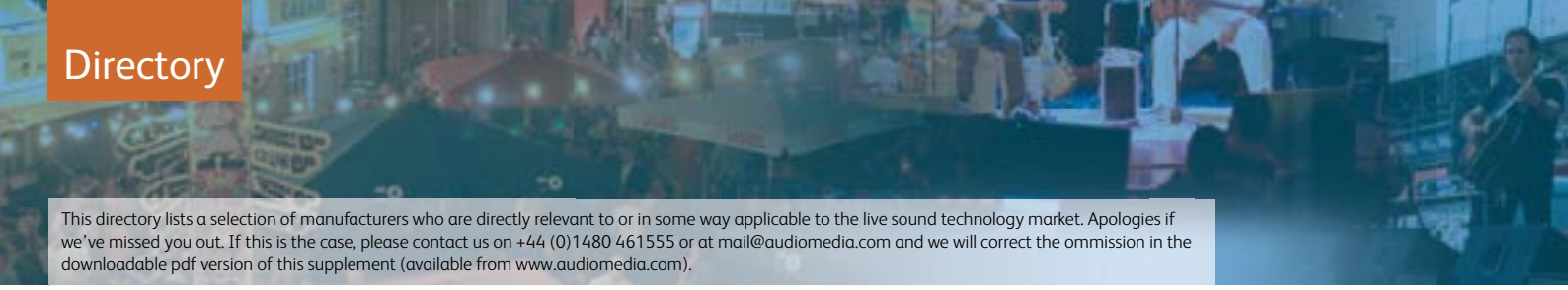

This directory lists a selection of manufacturers who are directly relevant to or in some way applicable to the live sound technology market. Apologies if we've missed you out. If this is the case, please contact us on +44 (0)1480 461555 or at mail@audiomedia.com and we will correct the ommission in the downloadable pdf version of this supplement (available from www.audiomedia.com).

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